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2183	Computer science. New life for neural networks. <i>Science</i> , 2006 , 313, 454-5	33.3	22
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2181	Supervised Learning of Image Restoration with Convolutional Networks. 2007 ,		104
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2176	Motor control in a meta-network with attractor dynamics. 2007, 165, 395-410	1
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2171	Auto-Associative Neural Network System for Recognition. 2007,	1
2170	Learning multiple layers of representation. 2007, 11, 428-34	694
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2168	To recognize shapes, first learn to generate images. 2007, 165, 535-47	153
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2163	Morpho butterfly wing scales demonstrate highly selective vapour response. 2007, 1, 123-128	454
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2161	Principles of hash-based text retrieval. 2007,	43

2160	How to build a brain: from function to implementation. 2007 , 159, 373-388	45
2159	Recognizing emotions expressed by body pose: a biologically inspired neural model. 2008 , 21, 1238-46	97
2158	Discussion of "Sure Independence Screening for Ultra-High Dimensional Feature Space. 2008 , 70, 903	1262
2157	Revealing biogeographical patterns by nonlinear ordinations and derived anisotropic spatial filters. 2008 , 17, 284-296	26
2156	Achievable Rates for Pattern Recognition. 2008 , 54, 299-320	29
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2154	Nonlinear Principal Component Analysis: Neural Network Models and Applications. 2008 , 44-67	65
2153	Performance Comparison of Three Types of Autoencoder Neural Networks. 2008 ,	9
2152	Extracting and composing robust features with denoising autoencoders. 2008 ,	2442
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2149	Small codes and large image databases for recognition. 2008 ,	382
2148	Reconstruction of handwritten digit images using autoencoder neural networks. 2008 ,	9
2147	Data visualization and dimensionality reduction using kernel maps with a reference point. 2008 , 19, 1501-17	24
2146	Training restricted Boltzmann machines using approximations to the likelihood gradient. 2008 ,	296
2145	Agency, argument structure, and causal inference. 2008 , 31, 728-729	
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2143	Inductive reasoning and semantic cognition: More than just different names for the same thing?. 2008 , 31, 715-716	

2142	Semantic cognition or data mining?. 2008 , 31, 714-715	1
2141	Semantic redintegration: Ecological invariance. 2008 , 31, 726-727	3
2140	Some suggested additions to the semantic cognition model. 2008 , 31, 721-722	
2139	Analogy and conceptual change in childhood. 2008 , 31, 723-723	2
2138	A crosslinguistic perspective on semantic cognition. 2008 , 31, 720-721	
2137	A sneaking suspicion: The semantics of emotional beliefs and delusions. 2008 , 31, 719-720	
2136	Context, categories and modality: Challenges for the Rumelhart model. 2008 , 31, 716-717	
2135	Semantic cognition: Distributed, but then attractive. 2008 , 31, 718-719	
2134	Concepts, correlations, and some challenges for connectionist cognition. 2008 , 31, 722-723	7
2133	Reading Semantic Cognition as a theory of concepts. 2008 , 31, 727-728	2
2132	A simple model from a powerful framework that spans levels of analysis. 2008 , 31, 729-749	7
2131	On the semantics of infant categorization and why infants perceive horses as humans. 2008 , 31, 724-726	
2130	Time for a re-think: Problems with the parallel distributed approach to semantic cognition. 2008 , 31, 724-724	
2129	Structured models of semantic cognition. 2008 , 31, 717-718	3
2128	Deep, narrow sigmoid belief networks are universal approximators. 2008 , 20, 2629-36	65
2127	On the quantitative analysis of deep belief networks. 2008 ,	94
2126	Deep networks for image retrieval on large-scale databases. 2008 ,	26
2125	Semi-supervised learning of compact document representations with deep networks. 2008 ,	83

2124	Algorithmic dimensionality reduction for molecular structure analysis. 2008 , 129, 064118	56
2123	Contrastive divergence in gaussian diffusions. 2008 , 20, 2238-52	2
2122	KNOWLEDGE TRANSFER IN DEEP CONVOLUTIONAL NEURAL NETS. 2008 , 17, 555-567	24
2121	A neural wake-sleep learning architecture for associating robotic facial emotions. 2008 ,	
2120	. 2008 ,	9
2119	Learning object classes from image thumbnails through deep neural networks. 2008 ,	5
2118	Sparse algorithms are not stable: A no-free-lunch theorem. 2008 ,	
2117	Prüfs of Semantic Cognition: A Parallel Distributed Processing Approach. 2008 , 31, 689-714	85
2116	Neural Computation Theories of Learning. 2008 , 667-679	0
2115	ENSO dynamics in current climate models: an investigation using nonlinear dimensionality reduction. 2008 , 15, 339-363	9
2114	High Resolution Imaging of the Fusiform Face Area (FFA) Using Nonlinear Classifiers Shows Diagnosticity for Nonface Categories. 2008 ,	
2113	What is the best multi-stage architecture for object recognition?. 2009 ,	901
2112	Justifying and generalizing contrastive divergence. 2009 , 21, 1601-21	114
2111	Dimensionality reduction and principal surfaces via Kernel Map Manifolds. 2009 ,	10
2110	Dimensionality reduction by self organizing maps that preserve distances in output space. 2009 ,	5
2109	Intrinsic dimensionality estimation and dimensionality reduction through scale space filtering. 2009 ,	2
2108	A Novel Tracking and Recognition Algorithm Using "Continuous Autoencoder" Network. 2009 ,	
2107	An Ensemble of Deep Support Vector Machines for Image Categorization. 2009 ,	15

2106	Curriculum learning. 2009,	1128
2105	Multilayer pLSA for multimodal image retrieval. 2009,	51
2104	Unsupervised image ranking. 2009,	8
2103	Factored conditional restricted Boltzmann Machines for modeling motion style. 2009,	142
2102	A high-performance FPGA architecture for restricted boltzmann machines. 2009,	15
2101	Large-scale deep unsupervised learning using graphics processors. 2009,	268
2100	Estimating intrinsic dimensionality of fMRI dataset incorporating an AR(1) noise model with cubic spline interpolation. 2009, 72, 1042-1055	10
2099	Learning flexible sensori-motor mappings in a complex network. 2009, 100, 147-58	14
2098	Joint trajectory tracking and recognition based on bi-directional nonlinear learning. 2009, 27, 1302-1312	4
2097	Is a Machine Realization of Truly Human-Like Intelligence Achievable?. 2009, 1, 17-21	16
2096	Improving the prediction accuracy of residue solvent accessibility and real-value backbone torsion angles of proteins by guided-learning through a two-layer neural network. 2009, 74, 847-56	115
2095	Learning a multi-dimensional companding function for lossy source coding. 2009, 22, 998-1010	
2094	Semantic hashing. 2009, 50, 969-978	662
2093	Evolving neural networks for strategic decision-making problems. 2009, 22, 326-37	32
2092	Nonlinear dimension reduction based neural modeling for distributed parameter processes. 2009, 64, 4164-4170	36
2091	Reservoir computing approaches to recurrent neural network training. 2009, 3, 127-149	1272
2090	Fitting sparse multidimensional data with low-dimensional terms. 2009, 180, 2002-2012	43
2089	Prospects for building cortex-scale CMOL/CMOS circuits: A design space exploration. 2009,	1

2088	Prototype Classification: Insights from Machine Learning. 2009 , 21, 272-300	10
2087	Stacks of convolutional Restricted Boltzmann Machines for shift-invariant feature learning. 2009 ,	78
2086	Convolutional deep belief networks for scalable unsupervised learning of hierarchical representations. 2009 ,	1043
2085	Non-Standard Parameter Adaptation for Exploratory Data Analysis. 2009 ,	6
2084	Recursive Sparse, Spatiotemporal Coding. 2009 ,	10
2083	FINDS - Integrative services. 2009 ,	1
2082	A Deep Non-linear Feature Mapping for Large-Margin kNN Classification. 2009 ,	32
2081	Randomized and Rank Based Differential Evolution. 2009 ,	
2080	Learning action descriptors for recognition. 2009 ,	2
2079	Deep networks for audio event classification in soccer videos. 2009 ,	8
2078	Humanoid Robot Motion Recognition and Reproduction. 2009 , 23, 349-366	10
2077	The place of modeling in cognitive science. 2009 , 1, 11-38	136
2076	Learning Deep Architectures for AI. 2009 , 2, 1-127	4542
2075	A Network Representation of Raster Land-Cover Patches. 2010 , 76, 61-72	4
2074	Learning shape features for document enhancement. 2010 ,	
2073	Algebraic Methods in Statistics and Probability II. 2010 ,	
2072	Effective multiplicative updates for non-negative discriminative learning in multimodal dimensionality reduction. 2010 , 34, 235-260	4
2071	Hybrid and ensemble-based soft computing techniques in bankruptcy prediction: a survey. 2010 , 14, 995-1010	106

2070	Reconstruction and recognition of face and digit images using autoencoders. 2010 , 19, 1069-1079	18
2069	Functional model of biological neural networks. 2010 , 4, 295-313	14
2068	Semi-supervised local Fisher discriminant analysis for dimensionality reduction. 2010 , 78, 35-61	186
2067	Sequential Labeling Using Deep-Structured Conditional Random Fields. 2010 , 4, 965-973	27
2066	Deep Machine Learning - A New Frontier in Artificial Intelligence Research [Research Frontier]. 2010 , 5, 13-18	655
2065	An associative sparse coding neural network and applications. 2010 , 73, 684-689	4
2064	Uncovering mental representations with Markov chain Monte Carlo. 2010 , 60, 63-106	66
2063	Machines that learn to segment images: a crucial technology for connectomics. 2010 , 20, 653-66	111
2062	Nonlinear dimensionality reduction with hybrid distance for trajectory representation of dynamic texture. 2010 , 90, 2375-2395	6
2061	Embodied compositionality: comment on "Embodied language, best-fit analysis, and formal compositionality" by J. Feldman. 2010 , 7, 418-20; discussion 421-3	1
2060	A connectionist approach to embodied conceptual metaphor. 2010 , 1, 197	18
2059	Internal representation of task rules by recurrent dynamics: the importance of the diversity of neural responses. 2010 , 4, 24	123
2058	Discriminative feature extraction with Deep Neural Networks. 2010 ,	9
2057	Learning to represent visual input. 2010 , 365, 177-84	39
2056	. 2010 ,	3
2055	Projection Vector Machine: One-stage learning algorithm from high-dimension small-sample data. 2010 ,	2
2054	RBM-based Silhouette Encoding for Human Action Modelling. 2010 ,	1
2053	Parametric dimensionality reduction by unsupervised regression. 2010 ,	3

2052	Deep Belief Networks for Real-Time Extraction of Tongue Contours from Ultrasound During Speech. 2010,	19
2051	Feature Extraction for Simple Classification. 2010,	6
2050	Restricted Boltzmann machine based algorithm for multi-objective optimization. 2010,	22
2049	Neural Networks. 2010,	
2048	Deep, big, simple neural nets for handwritten digit recognition. 2010, 22, 3207-20	573
2047	Unsupervised dimensionality reduction: Overview and recent advances. 2010,	12
2046	Convolutional networks and applications in vision. 2010,	803
2045	Topological features in locally connected RBMs. 2010,	2
2044	Augmented Efficient BackProp for backpropagation learning in deep autoassociative neural networks. 2010,	3
2043	Self-taught hashing for fast similarity search. 2010,	198
2042	Deep adaptive networks for image classification. 2010,	
2041	Making the Most Out of Surrogate Models: Tricks of the Trade. 2010,	32
2040	Large-margin classification in infinite neural networks. 2010, 22, 2678-97	26
2039	Comparing classification methods for longitudinal fMRI studies. 2010, 22, 2729-62	32
2038	Modeling pixel means and covariances using factorized third-order boltzmann machines. 2010,	70
2037	Parallel tempering is efficient for learning restricted Boltzmann machines. 2010,	32
2036	Improved Nonlinear PCA Based on RBF Networks and Principal Curves. 2010, 7-15	2
2035	Learning mid-level features for recognition. 2010,	532

2034	On Tracker Selection for Peer-to-Peer Traffic Locality. 2010,	4
2033	Deep auto-encoder neural networks in reinforcement learning. 2010,	144
2032	The Savant Hypothesis: is autism a signal-processing problem?. 2010, 75, 257-65	4
2031	Letting structure emerge: connectionist and dynamical systems approaches to cognition. 2010, 14, 348-56	324
2030	Learning to Detect Roads in High-Resolution Aerial Images. 2010, 210-223	175
2029	Local Modeling Approach for Spatially Distributed System Based on Interval Type-2 T-S Fuzzy Sets. 2010, 49, 4352-4359	7
2028	Visual exploration of high dimensional scalar functions. 2010, 16, 1271-80	54
2027	Deep Quantum Networks for Classification. 2010,	6
2026	Discriminative Deep Belief Networks for image classification. 2010,	15
2025	Robust pattern recognition using chaotic dynamics in Attractor Recurrent Neural Network. 2010,	2
2024	A Novel Text Classification Approach Based on Deep Belief Network. 2010, 314-321	14
2023	A tutorial on stochastic approximation algorithms for training Restricted Boltzmann Machines and Deep Belief Nets. 2010,	28
2022	Semi-supervised hashing for scalable image retrieval. 2010,	349
2021	Life System Modeling and Intelligent Computing. 2010,	
2020	Artificial Intelligence and Computational Intelligence. 2010,	2
2019	A Simulation Study of Deep Belief Network Combined with the Self-Organizing Mechanism of Adaptive Resonance Theory. 2010,	1
2018	Visual robot localization using compact binary landmarks. 2010,	7
2017	SOAR Sparse Oracle-based Adaptive Rule extraction: Knowledge extraction from large-scale datasets to detect credit card fraud. 2010,	6

2016	Semi-Supervised Anomaly Detection for EEG Waveforms Using Deep Belief Nets. 2010,	42
2015	High-performance reconfigurable hardware architecture for restricted Boltzmann machines. 2010, 21, 1780-92	53
2014	Bayesian Maximum Margin Clustering. 2010,	1
2013	Training Conditional Random Fields Using Transfer Learning for Gesture Recognition. 2010,	9
2012	A Hybrid Neural Classifier for Dimensionality Reduction and Data Visualization and Its Application to Fault Detection and Classification of Induction Motors. 2011,	1
2011	Transformer fault diagnosis based on autoassociative neural networks. 2011,	4
2010	Training oscillatory dynamics with spike-timing-dependent plasticity in a computer model of neocortex. 2011,	7
2009	Forecasting exchange rate with deep belief networks. 2011,	22
2008	Comparing multilayer perceptron to Deep Belief Network Tandem features for robust ASR. 2011,	23
2007	Iterative Gaussianization: from ICA to random rotations. 2011, 22, 537-49	55
2006	Supervised Matrix Factorization with sparseness constraints and fast inference. 2011,	2
2005	A Semi-supervised Ensemble Learning Approach for Character Labeling with Minimal Human Effort. 2011,	16
2004	Adaptive bridge control strategy for opinion evolution on social networks. 2011, 21, 025116	22
2003	Exploring speaker-specific characteristics with deep learning. 2011,	5
2002	Applying neural network Poisson regression to predict cognitive score changes. 2011, 38, 2051-2062	5
2001	A digital neurosynaptic core using embedded crossbar memory with 45pJ per spike in 45nm. 2011,	213
2000	Object recognition with hierarchical kernel descriptors. 2011,	112
1999	Eye Detection and Eye Blink Detection Using AdaBoost Learning and Grouping. 2011,	10

1998	Learning image representations from the pixel level via hierarchical sparse coding. 2011,	103
1997	The neural optimal control hierarchy for motor control. 2011, 8, 065009	17
1996	A survey of methodologies for the treatment of missing values within datasets: limitations and benefits. 2011, 12, 15-43	41
1995	Lost in binarization. 2011,	29
1994	Composite hashing with multiple information sources. 2011,	132
1993	Efficient learning of sparse, distributed, convolutional feature representations for object recognition. 2011,	17
1992	Deep Learning Approaches to Semantic Relevance Modeling for Chinese Question-Answer Pairs. 2011, 10, 1-16	14
1991	Sum-product networks: A new deep architecture. 2011,	128
1990	Discovering binary codes for documents by learning deep generative models. 2011, 3, 74-91	40
1989	Flexible, foldable, actively multiplexed, high-density electrode array for mapping brain activity in vivo. 2011, 14, 1599-605	807
1988	Comment. 2011, 106, 802-803	
1987	Deep learning regularized Fisher mappings. 2011, 22, 1668-75	28
1986	Learning speaker-specific characteristics with a deep neural architecture. 2011, 22, 1744-56	65
1985	Learning Dynamic Tactile Sensing With Robust Vision-Based Training. 2011, 27, 545-557	76
1984	Bayesian Reasoning and Machine Learning. 675-688	
1983	Large-Scale Learning for Vision with GPUs. 373-398	
1982	Towards a computer language for the i-society. 2011,	
1981	Learning algorithm in restricted Boltzmann machines using Kullback-Leibler importance estimation procedure. 2011, 2, 153-164	2

1980	Dimensionality reduction for blog tag mining. 2011 , 6, 286	2
1979	Large-Scale FPGA-Based Convolutional Networks. 399-419	59
1978	Lampung - a new handwritten character benchmark. 2011 ,	3
1977	Competitive/collaborative neural computing system for medical diagnosis in pancreatic cancer detection. 2011 , 28, 33-48	20
1976	Natural computing for mechanical systems research: A tutorial overview. 2011 , 25, 4-111	185
1975	Quantum annealing with manufactured spins. 2011 , 473, 194-8	871
1974	Nonlinear enhancement of noisy speech, using continuous attractor dynamics formed in recurrent neural networks. 2011 , 74, 2716-2724	11
1973	Object recognition using a bio-inspired neuron model with bottom-up and top-down pathways. 2011 , 74, 3158-3169	5
1972	Improved nonlinear PCA for process monitoring using support vector data description. 2011 , 21, 1306-1317	39
1971	A thermodynamic perspective of immune capabilities. 2011 , 287, 48-63	32
1970	Calibration of Confidence Measures in Speech Recognition. 2011 , 19, 2461-2473	21
1969	Neural network-based symbol recognition using a few labeled samples. 2011 , 35, 955-966	7
1968	Front end analysis of speech recognition: a review. 2011 , 14, 99-145	51
1967	Using autoencoders for mammogram compression. 2011 , 35, 49-58	22
1966	Intrinsic plagiarism analysis. 2011 , 45, 63-82	74
1965	Mathematical framework for form inspection. 2011 , 52, 637-649	1
1964	Biodiesel classification by base stock type (vegetable oil) using near infrared spectroscopy data. 2011 , 689, 190-7	89
1963	Real-time lip reading system for isolated Korean word recognition. 2011 , 44, 559-571	39

1962	Advances in adaptive nonlinear manifolds and dimensionality reduction. 2011 , 6, 72-85	8
1961	Model-based predictive control for spatially-distributed systems using dimensional reduction models. 2011 , 8, 1-7	8
1960	Acquisition of nonlinear forward optics in generative models: two-stage "downside-up" learning for occluded vision. 2011 , 24, 148-58	1
1959	A detailed investigation into low-level feature detection in spectrogram images. 2011 , 44, 2076-2092	10
1958	A time-frequency convolutional neural network for the offline classification of steady-state visual evoked potential responses. 2011 , 32, 1145-1153	49
1957	A compact local binary pattern using maximization of mutual information for face analysis. 2011 , 44, 532-543	33
1956	Low resolution face recognition with pose variations using deep belief networks. 2011 ,	1
1955	Gradient-based learning of higher-order image features. 2011 ,	25
1954	Bounding the bias of contrastive divergence learning. 2011 , 23, 664-73	31
1953	Learning emotion-based acoustic features with deep belief networks. 2011 ,	41
1952	On the Expressive Power of Deep Architectures. 2011 , 18-36	84
1951	Supervised neural computing and LMI optimisation for order model reduction-based control of the Buck switching-mode power supply. 2011 , 42, 91-106	2
1950	Learning better image representations using object analysis. 2011 ,	0
1949	Incremental on-line semi-supervised learning for segmenting the left ventricle of the heart from ultrasound data. 2011 ,	6
1948	Reducing the training set using semi-supervised self-training algorithm for segmenting the left ventricle in ultrasound images. 2011 ,	
1947	A better way to learn features. 2011 , 54, 94-94	6
1946	Ask the locals: Multi-way local pooling for image recognition. 2011 ,	143
1945	Spatio-Temporal Modeling of Nonlinear Distributed Parameter Systems. 2011 ,	53

1944	Improved Learning of Gaussian-Bernoulli Restricted Boltzmann Machines. 2011 , 10-17	65
1943	Coping with Complexity: Model Reduction and Data Analysis. 2011 ,	3
1942	Semi-supervised training for conditional random fields with pseudo auxiliary task. 2011 ,	
1941	Tree preserving embedding. 2011 , 108, 16916-21	13
1940	Integrating Mahalanobis typicalities with a neural network for rubber distribution mapping. 2011 , 2, 157-166	35
1939	Modeling electroencephalography waveforms with semi-supervised deep belief nets: fast classification and anomaly measurement. 2011 , 8, 036015	120
1938	Deep neural networks for acoustic emotion recognition: Raising the benchmarks. 2011 ,	139
1937	Semi-supervised self-training model for the segmentation of the left ventricle of the heart from ultrasound data. 2011 ,	
1936	. 2011 ,	48
1935	Unsupervised learning of hierarchical representations with convolutional deep belief networks. 2011 , 54, 95-103	228
1934	Sentiment classification via l2-norm deep belief network. 2011 ,	7
1933	Dimensionality reduction of radio map with nonlinear autoencoder. 2012 , 48, 655	13
1932	Design of Deep Belief Networks for Short-Term Prediction of Drought Index Using Data in the Huaihe River Basin. 2012 , 2012, 1-16	35
1931	The impact of images on user clicks in product search. 2012 ,	3
1930	CoNet. 2012 ,	5
1929	An Introduction to Restricted Boltzmann Machines. 2012 , 14-36	214
1928	Encyclopedia of the Sciences of Learning. 2012 , 1800-1805	
1927	A novel approach for resolving differences in single-cell gene expression patterns from zygote to blastocyst. 2012 , 28, i626-i632	44

1926	Learning hash codes for efficient content reuse detection. 2012,	7
1925	A probabilistic model for multimodal hash function learning. 2012,	129
1924	Revisiting Recurrent Neural Networks for robust ASR. 2012,	66
1923	Enhancing recommended video lists for Youtube-like social media. 2012,	
1922	Relevance Realization and the Emerging Framework in Cognitive Science. 2012, 22, 79-99	13
1921	A unified approach to learning task-specific bit vector representations for fast nearest neighbor search. 2012,	1
1920	Emerging Intelligent Computing Technology and Applications. 2012,	1
1919	On-line re-training and segmentation with reduction of the training set: Application to the left ventricle detection in ultrasound imaging. 2012,	
1918	Learning feature hierarchies under reinforcement. 2012,	2
1917	Extracting typical users' moving patterns using deep learning. 2012,	2
1916	A discriminative deep model for pedestrian detection with occlusion handling. 2012,	25
1915	Robust Boltzmann Machines for recognition and denoising. 2012,	20
1914	The origins and structure of quantitative concepts. 2012, 29, 149-73	30
1913	Simultaneous feature selection and parameter optimization for training of dialog policy by reinforcement learning. 2012,	
1912	Air-ground vehicle detection using local feature learning and saliency region detection. 2012,	1
1911	Learning rotation-aware features: From invariant priors to equivariant descriptors. 2012,	35
1910	Encyclopedia of the Sciences of Learning. 2012, 1754-1757	0
1909	Investigation on dimensionality reduction of concatenated features with deep neural network for LVCSR systems. 2012,	12

1908	Soft Computation Using Artificial Neural Estimation And Linear Matrix Inequality Transmutation For Controlling Singularly-Perturbed Closed Time-Independent Quantum Computation Systems, Part A: Basics And Approach. 2012 , 18, 75-95		
1907	Soft Computation Using Artificial Neural Estimation And Linear Matrix Inequality Transmutation For Controlling Singularly-Perturbed Closed Timeindependent Quantum Computation Systems, Part B: Hierarchical Regulation Implementation. 2012 , 18, 97-115		
1906	Non-negative sparse autoencoder neural networks for the detection of overlapping, hierarchical communities in networked datasets. 2012 , 22, 043141		2
1905	An Integrated Neuroevolutionary Approach to Reactive Control and High-Level Strategy. 2012 , 16, 472-488		8
1904	Reconstructing Missing Data in State Estimation With Autoencoders. 2012 , 27, 604-611		50
1903	A large-scale model of the functioning brain. <i>Science</i> , 2012 , 338, 1202-5	33.3	558
1902	Neuroscience. Building the human brain. <i>Science</i> , 2012 , 338, 1156-7	33.3	64
1901	Auditory expectation: the information dynamics of music perception and cognition. 2012 , 4, 625-52		115
1900	Exploiting sparseness in deep neural networks for large vocabulary speech recognition. 2012 ,		59
1899	Exploring Peer-to-Peer Locality in Multiple Torrent Environment. 2012 , 23, 1216-1226		5
1898	Breast image feature learning with adaptive deconvolutional networks. 2012 ,		24
1897	Population rate dynamics and multineuron firing patterns in sensory cortex. 2012 , 32, 17108-19		47
1896	Predicting protein residue-residue contacts using deep networks and boosting. 2012 , 28, 3066-72		120
1895	Semi-supervised hashing for large-scale search. 2012 , 34, 2393-406		532
1894	Learning the dynamics of objects by optimal functional interpolation. 2012 , 24, 2457-72		
1893	Boolean autoencoders and hypercube clustering complexity. 2012 , 65, 383-403		6
1892	Application of nonlinear PCA for fault detection in polymer extrusion processes. 2012 , 21, 1141-1148		6
1891	Tensorized Feature Extraction Technique for Multimodality Preserving Manifold Visualization. 2012 , 44, 295-314		

1890	Marginal semi-supervised sub-manifold projections with informative constraints for dimensionality reduction and recognition. 2012 , 36, 97-111	33
1889	Deep Learning. 2012 , 26, 357-363	19
1888	tuPOY: Epitomizing a New Epoch in Communications With Polymer Textiles. 2012 , 100, 3079-3098	2
1887	Semiconducting bilinear deep learning for incomplete image recognition. 2012 ,	3
1886	A Folded Neural Network Autoencoder for Dimensionality Reduction. 2012 , 13, 120-127	36
1885	Concept of stochastic memory & data retrieval using artificial neural networks increasing memory capacity and data security by data overlapping. 2012 ,	
1884	. 2012 ,	7
1883	. 2012 ,	2
1882	Feature extraction using Restricted Boltzmann Machine for stock price prediction. 2012 ,	19
1881	Isometric Multi-manifold Learning for Feature Extraction. 2012 ,	14
1880	. 2012 , 4, 167-177	24
1879	Large-scale neuro-modeling for understanding and explaining some brain-related chaotic behavior. 2012 , 88, 1316-1337	5
1878	Polymer extrusion process monitoring using nonlinear dynamic model-based PCA. 2012 ,	1
1877	The use of on-line co-training to reduce the training set size in pattern recognition methods: Application to left ventricle segmentation in ultrasound. 2012 ,	6
1876	Learning Boltzmann Distance Metric for Face Recognition. 2012 ,	1
1875	Nonlinear data description with Principal Polynomial Analysis. 2012 ,	2
1874	Space coding for sensorimotor transformations can emerge through unsupervised learning. 2012 , 13 Suppl 1, S141-6	8
1873	Development of invariant feature maps via a computational model of simple and complex cells. 2012 ,	

1872	. 2012 , 14, 1234-1245	35
1871	Deep nonlinear metric learning with independent subspace analysis for face verification. 2012 ,	43
1870	Autonomous reinforcement learning on raw visual input data in a real world application. 2012 ,	64
1869	A hierarchical Bayesian model for pattern recognition. 2012 ,	0
1868	Extracting the informative constraints for semi-supervised marginal projections in multimodal dimensionality reduction. 2012 ,	1
1867	Hierarchical face parsing via deep learning. 2012 ,	2
1866	How does the brain solve visual object recognition?. 2012 , 73, 415-34	931
1865	Generating feature spaces for linear algorithms with regularized sparse kernel slow feature analysis. 2012 , 89, 67-86	11
1864	Locally linear embedding method for dimensionality reduction of tissue sections of endometrial carcinoma by near infrared spectroscopy. 2012 , 724, 12-9	20
1863	On the equivalence of Hopfield networks and Boltzmann Machines. 2012 , 34, 1-9	74
1862	Computational biology perspective: kernel methods and deep learning. 2012 , 4, 455-465	6
1861	A novel bidirectional neural network for face recognition. 2012 ,	5
1860	Diagnosing Faults in Power Transformers With Autoassociative Neural Networks and Mean Shift. 2012 , 27, 1350-1357	66
1859	Spline regression hashing for fast image search. 2012 , 21, 4480-91	18
1858	Probabilistic Graphical Approaches for Learning, Modeling, and Sampling in Evolutionary Multi-objective Optimization. 2012 , 122-144	1
1857	An efficient learning procedure for deep Boltzmann machines. 2012 , 24, 1967-2006	299
1856	Deep Big Multilayer Perceptrons for Digit Recognition. 2012 , 581-598	19
1855	Emergence of a 'visual number sense' in hierarchical generative models. 2012 , 15, 194-6	223

1854	Deep Neural Networks for Acoustic Modeling in Speech Recognition: The Shared Views of Four Research Groups. 2012 , 29, 82-97	5006
1853	Encyclopedia of the Sciences of Learning. 2012 , 1782-1788	7
1852	Advances in Neural Networks [ISNN 2012]. 2012 ,	1
1851	Advances in Computational Intelligence. 2012 ,	11
1850	Probabilistic PCA-Based Spatiotemporal Multimodeling for Nonlinear Distributed Parameter Processes. 2012 , 51, 6811-6822	9
1849	Encyclopedia of the Sciences of Learning. 2012 , 1887-1887	
1848	Scalable stacking and learning for building deep architectures. 2012 ,	108
1847	Building block of a programmable neuromorphic substrate: A digital neurosynaptic core. 2012 ,	70
1846	Learning where to attend with deep architectures for image tracking. 2012 , 24, 2151-84	82
1845	Training Deep and Recurrent Networks with Hessian-Free Optimization. 2012 , 479-535	69
1844	A neural computational model for bottom-up attention with invariant and overcomplete representation. 2012 , 13, 145	1
1843	Dynamical recollection of interconnected neural networks using meta-heuristics. 2012 , 95, 12-23	2
1842	Towards Semi-supervised Transcription of Handwritten Historical Weather Reports. 2012 ,	8
1841	Recognizing recurrent neural networks (rRNN): Bayesian inference for recurrent neural networks. 2012 , 106, 201-17	14
1840	Multimodal Image Retrieval. 2012 , 1, 31-44	11
1839	A visualization metric for dimensionality reduction. 2012 , 39, 1747-1752	6
1838	Data space reduction, quality assessment and searching of seismograms: autoencoder networks for waveform data. 2012 , 189, 1183-1202	36
1837	A new brain-inspired robust face recognition through elimination of variation features. 2012 , 32, 204-212	1

1836	Complex-valued autoencoders. 2012 , 33, 136-47	29
1835	Efficient and effective algorithms for training single-hidden-layer neural networks. 2012 , 33, 554-558	43
1834	Acoustic Modeling Using Deep Belief Networks. 2012 , 20, 14-22	937
1833	Context-Dependent Pre-Trained Deep Neural Networks for Large-Vocabulary Speech Recognition. 2012 , 20, 30-42	1517
1832	The segmentation of the left ventricle of the heart from ultrasound data using deep learning architectures and derivative-based search methods. 2012 , 21, 968-82	127
1831	Feature extraction with deep neural networks by a generalized discriminant analysis. 2012 , 23, 596-608	81
1830	Sparse Algorithms Are Not Stable: A No-Free-Lunch Theorem. 2012 , 34, 187-93	97
1829	Online correction MPC strategy for spatially-distributed system based on PCA method. 2012 , 10, 71-76	
1828	SEMISUPERVISED MULTIMODAL DIMENSIONALITY REDUCTION. 2013 , 29, 70-110	1
1827	Convolutional Deep Networks for Visual Data Classification. 2013 , 38, 17-27	14
1826	Towards an Auto-Associative Topology State Estimator. 2013 , 28, 3311-3318	20
1825	The flip-the-state transition operator for restricted Boltzmann machines. 2013 , 93, 53-69	15
1824	Dual local consistency hashing with discriminative projections selection. 2013 , 93, 2256-2264	4
1823	Network anomaly detection with the restricted Boltzmann machine. 2013 , 122, 13-23	229
1822	Evaluation of weighted Fisher criteria for large category dimensionality reduction in application to Chinese handwriting recognition. 2013 , 46, 2599-2611	15
1821	Nostradamus 2013: Prediction, Modeling and Analysis of Complex Systems. 2013 ,	3
1820	AutoAssociative Pyramidal Neural Network for one class pattern classification with implicit feature extraction. 2013 , 40, 7258-7266	4
1819	Deep architectures and deep learning in chemoinformatics: the prediction of aqueous solubility for drug-like molecules. 2013 , 53, 1563-75	317

1818	Hierarchical Feature Extraction With Local Neural Response for Image Recognition. 2013 , 43, 412-24	31
1817	Deep Belief Networks Based Voice Activity Detection. 2013 , 21, 697-710	158
1816	DNdisorder: predicting protein disorder using boosting and deep networks. 2013 , 14, 88	65
1815	Machine Learning for Computer Vision. 2013 ,	9
1814	Projection vector machine. 2013 , 120, 490-498	3
1813	Representation learning: a review and new perspectives. 2013 , 35, 1798-828	5396
1812	Combining Multidimensional Scaling with Artificial Neural Networks. 2013 , 113-177	2
1811	Active deep learning method for semi-supervised sentiment classification. 2013 , 120, 536-546	89
1810	Comparative analysis of hyperspectral dimension reduction methods. 2013 ,	3
1809	. 2013 ,	11
1808	Artificial Neural Networks and Machine Learning IICANN 2013. 2013 ,	5
1807	Enhancing the scalability of multi-objective optimization via restricted Boltzmann machine-based estimation of distribution algorithm. 2013 , 248, 191-213	16
1806	The virtual brain integrates computational modeling and multimodal neuroimaging. 2013 , 3, 121-45	151
1805	Deep Learning Shape Priors for Object Segmentation. 2013 ,	35
1804	Independent component analysis: recent advances. 2013 , 371, 20110534	140
1803	Modular hierarchical feature learning with deep neural networks for face verification. 2013 ,	2
1802	Pedestrian Detection with Unsupervised Multi-stage Feature Learning. 2013 ,	377
1801	Source code author identification with unsupervised feature learning. 2013 , 34, 330-334	13

1800	Progress in Pattern Recognition, Image Analysis, Computer Vision, and Applications. 2013 ,	0
1799	Rotation, Scaling and Deformation Invariant Scattering for Texture Discrimination. 2013 ,	149
1798	Intrinsically Motivated Learning in Natural and Artificial Systems. 2013 ,	69
1797	Human Interface and the Management of Information. Information and Interaction Design. 2013 ,	1
1796	Semantic hashing using tags and topic modeling. 2013 ,	16
1795	Natural Language Processing and Chinese Computing. 2013 ,	
1794	Computational modelling of memory retention from synapse to behaviour. 2013 , 2013, P03007	3
1793	Deep Learning Approaches for Link Prediction in Social Network Services. 2013 , 425-432	18
1792	Learning Sentence Representation for Emotion Classification on Microblogs. 2013 , 212-223	11
1791	Feature Learning by Multidimensional Scaling and Its Applications in Object Recognition. 2013 ,	10
1790	Building high-level features using large scale unsupervised learning. 2013 ,	499
1789	Statistical Language and Speech Processing. 2013 ,	
1788	Detection of exact and similar partial copies for copyright protection of manga. 2013 , 16, 331-349	11
1787	. 2013 , 15, 141-152	99
1786	Machine Learning in Handwritten Arabic Text Recognition. 2013 , 31, 443-469	6
1785	Electron Microscopy Reconstruction of Brain Structure Using Sparse Representations Over Learned Dictionaries. 2013 , 32, 2179-88	11
1784	Combining multiple dynamic models and deep learning architectures for tracking the left ventricle endocardium in ultrasound data. 2013 , 35, 2592-607	83
1783	Adaptive bit allocation hashing for approximate nearest neighbor search. 2013 ,	

1782	Learning with hierarchical-deep models. 2013 , 35, 1958-71	157
1781	Context-dependent modelling of deep neural network using logistic regression. 2013 ,	2
1780	Discriminant-enhanced neighborhood preserving embedding for dimensionality reduction. 2013 ,	
1779	Document similarity estimation for sentiment analysis using neural network. 2013 ,	6
1778	Locality sensitive hashing of customer load profiles. 2013 ,	1
1777	Towards Scaling Up Classification-Based Speech Separation. 2013 , 21, 1381-1390	247
1776	Deep Belief Network for Modeling Hierarchical Reinforcement Learning Policies. 2013 ,	
1775	Tag-aware image classification via Nested Deep Belief nets. 2013 ,	2
1774	Latent feature learning in social media network. 2013 ,	15
1773	Aircraft Detection by Deep Belief Nets. 2013 ,	35
1772	Nonlinear Dynamic Fault Diagnosis Method Based on DAutoencoder. 2013 ,	
1771	Research on state differential artificial neural network. 2013 ,	
1770	Tensor deep stacking networks. 2013 , 35, 1944-57	92
1769	A Robust Unsupervised Feature Learning Framework Using Spatial Boosting Networks. 2013 ,	
1768	A Flexible Memory Controller Supporting Deep Belief Networks with Fixed-Point Arithmetic. 2013 ,	1
1767	Multimodal integration learning of object manipulation behaviors using deep neural networks. 2013 ,	11
1766	A reconfigurable stream compression hardware based on static symbol-lookup table. 2013 ,	2
1765	Sparse representations in deep learning for noise-robust digit classification. 2013 ,	2

1764	Left ventricle segmentation from cardiac MRI combining level set methods with deep belief networks. 2013,	26
1763	Restricted Boltzmann machine approach to couple dictionary training for image super-resolution. 2013,	4
1762	Combining a bottom up and top down classifiers for the segmentation of the left ventricle from cardiac imagery. 2013,	
1761	Sparse maximum entropy deep belief nets. 2013,	
1760	Efficient encoding of customer class load profiles. 2013,	2
1759	Visualisation of high-dimensional data using an ensemble of neural networks. 2013,	1
1758	Handwritten character recognition with sequential convolutional neural network. 2013,	
1757	Unified losses for multi-modal pose coding and regression. 2013,	3
1756	Learning deep physiological models of affect. 2013, 8, 20-33	151
1755	Stochastic neuron design using conductive bridge RAM. 2013,	15
1754	Human behavior prediction for smart homes using deep learning. 2013,	13
1753	Multi-stage Contextual Deep Learning for Pedestrian Detection. 2013,	78
1752	Wordless Sounds: Robust Speaker Diarization Using Privacy-Preserving Audio Representations. 2013, 21, 85-98	9
1751	Methods and Applications for Distance Based ANN Training. 2013,	0
1750	3D convolutional neural networks for human action recognition. 2013, 35, 221-31	2990
1749	A unifying methodology for the evaluation of neural network models on novelty detection tasks. 2013, 16, 83-97	7
1748	Forecasting large scale conditional volatility and covariance using neural network on GPU. 2013, 63, 490-507	6
1747	Hashing with dual complementary projection learning for fast image retrieval. 2013, 120, 83-89	23

1746	Natural image sequences constrain dynamic receptive fields and imply a sparse code. 2013 , 1536, 53-67	4
1745	A Two-Stage Pretraining Algorithm for Deep Boltzmann Machines. 2013 , 106-113	12
1744	A learning framework for the optimization and automation of document binarization methods. 2013 , 117, 269-280	21
1743	Visual analysis of a cold rolling process using a dimensionality reduction approach. 2013 , 26, 1865-1871	7
1742	Visualizing the quality of dimensionality reduction. 2013 , 112, 109-123	40
1741	Hypergraph Spectral Hashing for image retrieval with heterogeneous social contexts. 2013 , 119, 49-58	21
1740	Neural networks that perform recognition using generative error may help fill the Neuro-Symbolic Gap 2013 , 3, 6-12	1
1739	Dimensionality Reduction. 2013 , 205-234	
1738	An Explicit Nonlinear Mapping for Manifold Learning. 2013 , 43, 51-63	60
1737	Modeling natural images using gated MRFs. 2013 , 35, 2206-22	34
1736	Enhanced gradient for training restricted Boltzmann machines. 2013 , 25, 805-31	30
1735	Deep learning with hierarchical convolutional factor analysis. 2013 , 35, 1887-901	63
1734	The Deep Tensor Neural Network With Applications to Large Vocabulary Speech Recognition. 2013 , 21, 388-396	68
1733	. 2013 , 21, 1060-1089	182
1732	Reducing bioinformatics data dimension with ABC-kNN. 2013 , 116, 367-381	24
1731	. 2013 , 15, 442-453	57
1730	Predicting novel herbivore-plant interactions. 2013 , 122, 1554-1564	66
1729	Deep Learning of Representations. 2013 , 1-28	23

1728	Innovative continuous non-invasive cuffless blood pressure monitoring based on photoplethysmography technology. 2013 , 39, 1618-25	77
1727	Whatever next? Predictive brains, situated agents, and the future of cognitive science. 2013 , 36, 181-204	2703
1726	Face recognition using Deep PCA. 2013 ,	11
1725	Gaussian-Bernoulli deep Boltzmann machine. 2013 ,	49
1724	Cognitive computing systems: Algorithms and applications for networks of neurosynaptic cores. 2013 ,	60
1723	Extreme Learning Machines [Trends & Controversies]. 2013 , 28, 30-59	249
1722	An efficient multiclassifier system based on convolutional neural network for offline handwritten Telugu character recognition. 2013 ,	9
1721	A study of transformation-invariances of deep belief networks. 2013 ,	2
1720	Noise benefits in backpropagation and deep bidirectional pre-training. 2013 ,	15
1719	Learning convolutional neural networks from few samples. 2013 ,	18
1718	Optimized Deep Learning Architectures with Fast Matrix Operation Kernels on Parallel Platform. 2013 ,	1
1717	. 2013 ,	419
1716	Affective state recognition from EEG with deep belief networks. 2013 ,	34
1715	Pedestrian Parsing via Deep Decompositional Network. 2013 ,	68
1714	Local Subspace Classifier with Gabor Filter Decomposition for Image Classification. 2013 ,	
1713	A generative framework for prediction and informative risk factor selection of bone diseases. 2013 ,	3
1712	Restricted Boltzmann machines for pre-training deep Gaussian networks. 2013 ,	3
1711	An analysis of inhibitory pseudo-interconnections in unsupervised neural networks. 2013 ,	

1710	Self-Avoiding Random Dynamics on Integer Complex Systems. 2013 , 23, 1-25	5
1709	A Semi-Supervised Learning Approach to Integrated Salient Risk Features for Bone Diseases. 2013 ,	0
1708	Bayesian computation emerges in generic cortical microcircuits through spike-timing-dependent plasticity. 2013 , 9, e1003037	165
1707	Digit Recognition Based on Distance Metric by Gabor Transformation. 2013 , 427-429, 1548-1551	
1706	Trace Ratio Optimization-Based Semi-Supervised Nonlinear Dimensionality Reduction for Marginal Manifold Visualization. 2013 , 25, 1148-1161	75
1705	i-vector representation based on bottleneck features for language identification. 2013 , 49, 1569-1570	43
1704	The Convallis rule for unsupervised learning in cortical networks. 2013 , 9, e1003272	12
1703	Learning multisensory integration and coordinate transformation via density estimation. 2013 , 9, e1003035	36
1702	Sparse coding can predict primary visual cortex receptive field changes induced by abnormal visual input. 2013 , 9, e1003005	25
1701	Hierarchical model of natural images and the origin of scale invariance. 2013 , 110, 3071-6	25
1700	When the predictive brain gets it really wrong. 2013 , 36, 208-9	4
1699	Maximal mutual information, not minimal entropy, for escaping the "Dark Room". 2013 , 36, 220-1	8
1698	Predictions in the light of your own action repertoire as a general computational principle. 2013 , 36, 219-20	10
1697	Expecting ourselves to expect: the Bayesian brain as a projector. 2013 , 36, 209-10	5
1696	Extending predictive processing to the body: emotion as interoceptive inference. 2013 , 36, 227-8	95
1695	Predicting drug-target interactions using restricted Boltzmann machines. 2013 , 29, 1126-34	133
1694	Grounding predictive coding models in empirical neuroscience research. 2013 , 36, 210-1	15
1693	Prediction, explanation, and the role of generative models in language processing. 2013 , 36, 211-2	38

1692	Backwards is the way forward: feedback in the cortical hierarchy predicts the expected future. 2013 , 36, 221	5
1691	Whenever next: hierarchical timing of perception and action. 2013 , 36, 217-8	2
1690	Are we predictive engines? Perils, prospects, and the puzzle of the porous perceiver. 2013 , 36, 233-53	132
1689	Action-oriented predictive processing and the neuroeconomics of sub-cognitive reward. 2013 , 36, 225-6	
1688	Attention and perceptual adaptation. 2013 , 36, 205-6	6
1687	Deep learning-based feature representation for AD/MCI classification. 2013 , 16, 583-90	197
1686	An Arabic Optical Character Recognition System Using Restricted Boltzmann Machines. 2013 , 108-115	
1685	Air-ground vehicle detection with a reduced object category specific visual dictionary. 2013 ,	1
1684	Time-Series Forecasting of Indoor Temperature Using Pre-trained Deep Neural Networks. 2013 , 451-458	21
1683	Two kinds of theory-laden cognitive processes: distinguishing intransigence from dogmatism. 2013 , 36, 218-9	2
1682	What else can brains do?. 2013 , 36, 230-1	3
1681	The problem with brain GUTs: conflation of different senses of "prediction" threatens metaphysical disaster. 2013 , 36, 204-5	47
1680	Attention is more than prediction precision. 2013 , 36, 206-8	15
1679	Classification of mysticete sounds using machine learning techniques. 2013 , 134, 3496-505	13
1678	Unraveling the mind. 2013 , 36, 214-5	1
1677	The brain is not an isolated "black box," nor is its goal to become one. 2013 , 36, 213-4	29
1676	Sparse coding and challenges for Bayesian models of the brain. 2013 , 36, 232-3	6
1675	Distinguishing theory from implementation in predictive coding accounts of brain function. 2013 , 36, 231-2	9

1674	Schizophrenia-related phenomena that challenge prediction error as the basis of cognitive functioning. 2013 , 36, 229-30	4
1673	Neuronal inference must be local, selective, and coordinated. 2013 , 36, 222-3	7
1672	Applications of predictive control in neuroscience. 2013 , 36, 208	2
1671	Affect and non-uniform characteristics of predictive processing in musical behaviour. 2013 , 36, 226-7	9
1670	Bayesian animals sense ecological constraints to predict fitness and organize individually flexible reproductive decisions. 2013 , 36, 215-6	6
1669	Interactively human: Sharing time, constructing materiality. 2013 , 36, 224-5	13
1668	Skull-bound perception and precision optimization through culture. 2013 , 36, 222	12
1667	God, the devil, and the details: Fleshing out the predictive processing framework. 2013 , 36, 223-4	17
1666	Personal narratives as the highest level of cognitive integration. 2013 , 36, 216-7	28
1665	Semi-supervised Dual Recurrent Neural Network for Sentiment Analysis. 2013 ,	5
1664	CLASSIFICATION OF TUMOR HISTOPATHOLOGY VIA SPARSE FEATURE LEARNING. 2013 , 2013,	22
1663	Receptive field resolution analysis in convolutional feature extraction. 2013 ,	1
1662	A novel sparse auto-encoder for deep unsupervised learning. 2013 ,	17
1661	Computation of Backpropagation Learning Algorithm Using Neuron Machine Architecture. 2013 ,	2
1660	Closed-Loop Deep Vision. 2013 ,	
1659	Modeling Spectral Envelopes Using Restricted Boltzmann Machines and Deep Belief Networks for Statistical Parametric Speech Synthesis. 2013 , 21, 2129-2139	83
1658	Deep Learning of Representations: Looking Forward. 2013 , 1-37	179
1657	Intersensory Causality Modeling Using Deep Neural Networks. 2013 ,	2

1656	Neural Networks for Astronomical Data Analysis and Bayesian Inference. 2013,	4
1655	Joint Deep Learning for Pedestrian Detection. 2013,	348
1654	Lung image patch classification with automatic feature learning. 2013, 2013, 6079-82	3
1653	Predicting speech recognition confidence using deep learning with word identity and score features. 2013,	13
1652	Sparse Autoencoder-Based Feature Transfer Learning for Speech Emotion Recognition. 2013,	172
1651	Classification of tumor histopathology via sparse feature learning. 2013,	3
1650	Improving deep neural network acoustic models using unlabeled data. 2013,	2
1649	Mining invariance in Restricted Boltzmann Machine via Information Geometry. 2013,	
1648	Modeling Mutual Visibility Relationship in Pedestrian Detection. 2013,	75
1647	Feature Transformation with Class Conditional Decorrelation. 2013,	
1646	Data Modeling Using Channel-Remapped Generalized Features. 2013,	
1645	Using deep stacking network to improve structured compressed sensing with Multiple Measurement Vectors. 2013,	9
1644	Improvements to the Descriptor of SIFT by BOF Approaches. 2013,	5
1643	Noise-Resistant Bicluster Recognition. 2013,	1
1642	Personalized news recommendation based on implicit feedback. 2013,	17
1641	Top-Down Segmentation of Non-rigid Visual Objects Using Derivative-Based Search on Sparse Manifolds. 2013,	3
1640	Hierarchical sparse autoencoder using linear regression-based features in clustering for handwritten digit recognition. 2013,	2
1639	Modeling spectral envelopes using restricted Boltzmann machines for statistical parametric speech synthesis. 2013,	17

1638	Investigation of tandem deep belief network approach for phoneme recognition. 2013,	1
1637	Multi-task deep neural network for multi-label learning. 2013,	32
1636	. 2013,	3
1635	Learning and association of synaesthesia phenomenon using deep neural networks. 2013,	
1634	A Deep Sum-Product Architecture for Robust Facial Attributes Analysis. 2013,	53
1633	Incoherent training of deep neural networks to de-correlate bottleneck features for speech recognition. 2013,	13
1632	Predicting protein structural classes with autoencoder neural networks. 2013,	0
1631	Gaussian-Bernoulli restricted Boltzmann machines and automatic feature extraction for noise robust missing data mask estimation. 2013,	7
1630	Visual Search: A Large-Scale Perspective. 2013, 269-297	
1629	Advanced Data Mining and Applications. 2013,	
1628	Spatial min-Hash for similar image search. 2013,	3
1627	Denoising deep neural networks based voice activity detection. 2013,	26
1626	. 2013,	1
1625	Perception versus action: the computations may be the same but the direction of fit differs. 2013, 36, 228-9	6
1624	Active inference and free energy. 2013, 36, 212-3	90
1623	Online multimodal deep similarity learning with application to image retrieval. 2013,	85
1622	B 17 Maschinelles Lernen, Mustererkennung in der Bildverarbeitung.	
1621	Discovery and analysis of topographic features using learning algorithms: A seamount case study. 2013, 40, 3048-3054	6

1620	Nonlinear Metric Learning with Deep Independent Subspace Analysis Network for Face Verification. 2013 , E96.D, 2830-2838	1
1619	- Computational Models of Visual Object Recognition. 2013 , 582-597	2
1618	An introductory study on deep neural networks for high resolution aerial images. 2013 ,	1
1617	Recurrent Processing during Object Recognition. 2013 , 4, 124	77
1616	Deep Unsupervised Learning on a Desktop PC: A Primer for Cognitive Scientists. 2013 , 4, 251	23
1615	Integrating probabilistic models of perception and interactive neural networks: a historical and tutorial review. 2013 , 4, 503	32
1614	Modeling language and cognition with deep unsupervised learning: a tutorial overview. 2013 , 4, 515	45
1613	Deep generative learning of location-invariant visual word recognition. 2013 , 4, 635	19
1612	Beyond the frontiers of neuronal types. 2013 , 7, 13	40
1611	Real-time classification and sensor fusion with a spiking deep belief network. 2013 , 7, 178	222
1610	Deep bottleneck features for spoken language identification. 2014 , 9, e100795	31
1609	Dimensionality reduction via regression on hyperspectral infrared sounding data. 2014 ,	1
1608	Restricted Boltzmann Machines for Classification of Hepatocellular Carcinoma. 2014 , 2014, 1-5	7
1607	Connectionism coming of age: legacy and future challenges. 2014 , 5, 187	4
1606	Adaptive learning in a compartmental model of visual cortex-how feedback enables stable category learning and refinement. 2014 , 5, 1287	2
1605	A conceptual framework of computations in mid-level vision. 2014 , 8, 158	16
1604	Nengo: a Python tool for building large-scale functional brain models. 2014 , 7, 48	159
1603	Event-driven contrastive divergence for spiking neuromorphic systems. 2013 , 7, 272	106

1602	Deep learning for neuroimaging: a validation study. 2014 , 8, 229	324
1601	Vehicle Engine Classification Using Spectral Tone-Pitch Vibration Indexing and Neural Network. 2014 , 2, 31-49	1
1600	Incremental Dataset Definition for Large Scale Musicological Research. 2014 ,	
1599	Chronological classification of ancient paintings using appearance and shape features. 2014 , 49, 146-154	15
1598	Principal polynomial analysis. 2014 , 24, 1440007	18
1597	Voice Conversion Using Deep Neural Networks With Layer-Wise Generative Training. 2014 , 22, 1859-1872	91
1596	A GENERAL FRAMEWORK FOR MANIFOLD RECONSTRUCTION FROM DIMENSIONALITY REDUCTION. 2014 , 28, 1451001	
1595	Active Media Technology. 2014 ,	
1594	Forecast chaotic time series data by DBNs. 2014 ,	17
1593	Camera-based Sudoku recognition with deep belief network. 2014 ,	6
1592	Deep Embedding Network for Clustering. 2014 ,	56
1591	Low-Rank and Sparse Modeling for Visual Analysis. 2014 ,	1
1590	Irrelevant Variability Normalization via Hierarchical Deep Neural Networks for Online Handwritten Chinese Character Recognition. 2014 ,	2
1589	A generative model of identifying informative proteins from dynamic PPI networks. 2014 , 57, 1080-9	2
1588	An Improved Bilinear Deep Belief Network Algorithm for Image Classification. 2014 ,	4
1587	Text Summarization Based on Sentence Selection with Semantic Representation. 2014 ,	4
1586	Text Classification with Document Embeddings. 2014 , 131-140	3
1585	Nonlinear Dynamic Projection for Noise Reduction of Dispersed Manifolds. 2014 , 36, 2303-9	10

1584	Multi-scale Temporal Modeling for Dimensional Emotion Recognition in Video. 2014,	21
1583	Classification of land cover based on deep belief networks using polarimetric RADARSAT-2 data. 2014,	3
1582	Non-rigid Segmentation Using Sparse Low Dimensional Manifolds and Deep Belief Networks. 2014,	5
1581	Stacked Sparse Autoencoder (SSAE) based framework for nuclei patch classification on breast cancer histopathology. 2014,	40
1580	Lattice based optimization of bottleneck feature extractor with linear transformation. 2014,	2
1579	. 2014,	9
1578	Anomaly Detection Using Autoencoders with Nonlinear Dimensionality Reduction. 2014,	302
1577	Pattern learning with deep neural networks in EMG-based speech recognition. 2014, 2014, 4200-3	12
1576	Incremental training of Restricted Boltzmann Machines using information driven saccades. 2014,	1
1575	Deep stacking networks with time series for speech separation. 2014,	13
1574	Fault tolerance analysis of digital feed-forward deep neural networks. 2014,	11
1573	Introducing shared-hidden-layer autoencoders for transfer learning and their application in acoustic emotion recognition. 2014,	38
1572	Deep auto-encoder based clustering. 2014, 18, S65-S76	19
1571	LRBM: A Restricted Boltzmann Machine Based Approach for Representation Learning on Linked Data. 2014,	9
1570	Multi-task deep learning for image understanding. 2014,	4
1569	Semi-supervised deep learning for object tracking and classification. 2014,	10
1568	A tutorial survey of architectures, algorithms, and applications for deep learning. 2014, 3,	246
1567	Recent Advances on Soft Computing and Data Mining. 2014,	3

1566	A neural model of mentalization/mindfulness based psychotherapy. 2014,	6
1565	Audio Features in Music Information Retrieval. 2014, 187-199	3
1564	A General Nonlinear Embedding Framework Based on Deep Neural Network. 2014,	2
1563	MDLFace: Memorability augmented deep learning for video face recognition. 2014,	26
1562	Unsupervised Feature Pre-training of the Scattering Wavelet Transform for Musical Genre Recognition. 2014, 18, 133-139	5
1561	Information acquisition performance by supervised information-theoretic self-organizing maps. 2014,	0
1560	Recognition of Handwritten Characters in Chinese Legal Amounts by Stacked Autoencoders. 2014,	8
1559	Vehicle Type Classification Using Unsupervised Convolutional Neural Network. 2014,	39
1558	Deep Learning for Character-Based Information Extraction. 2014, 668-674	7
1557	Deep Network Cascade for Image Super-resolution. 2014, 49-64	89
1556	Prediction of Stock Trend Based on Deep Belief Networks. 2014, 644-650, 5538-5541	1
1555	A Neural Network Based Distance Function for the k-Nearest Neighbor Classifier. 2014,	0
1554	Large margin low rank tensor analysis. 2014, 26, 761-80	18
1553	Extending the Extreme Physical Information to Universal Cognitive Models via a Confident Information First Principle. 2014, 16, 3670-3688	3
1552	Efficient data compression with error bound guarantee in wireless sensor networks. 2014,	3
1551	Automatic touching detection and recognition of music chord using auto-encoding and softmax. 2014,	
1550	Deep learning for healthcare decision making with EMRs. 2014,	75
1549	Classification on ADHD with Deep Learning. 2014,	37

1548	Discrimination of ADHD Based on fMRI Data with Deep Belief Network. 2014 , 225-232	24
1547	Deep learning of the tissue-regulated splicing code. 2014 , 30, i121-9	276
1546	Deep hash: semantic similarity preserved hash scheme. 2014 , 50, 1347-1349	4
1545	Whisper-to-speech conversion using restricted Boltzmann machine arrays. 2014 , 50, 1781-1782	10
1544	Automated fault detection using deep belief networks for the quality inspection of electromotors. 2014 , 81, 255-263	32
1543	Inductive Transfer Deep Hashing for Image Retrieval. 2014 ,	4
1542	Pedestrian Detection Based on Multi-Stage Unsupervised Learning. 2014 , 687-691, 957-960	
1541	RMSE-ELM: Recursive Model Based Selective Ensemble of Extreme Learning Machines for Robustness Improvement. 2014 , 2014, 1-12	
1540	Prediction of Depth of Sedation from Biological Signals Using Continuous Restricted Boltzmann Machine. 2014 , 2014, 1-6	1
1539	msiDBN: a method of identifying critical proteins in dynamic PPI networks. 2014 , 2014, 138410	3
1538	Paper texture classification via multi-scale Restricted Boltzman Machines. 2014 ,	2
1537	Denoising autoencoder and environment adaptation for distant-talking speech recognition with asynchronous speech recording. 2014 ,	2
1536	Classification of Electrocardiogram Signals with Deep Belief Networks. 2014 ,	28
1535	A feature transformation method using genetic programming for two-class classification. 2014 ,	2
1534	Single-channel dereverberation for distant-talking speech recognition by combining denoising autoencoder and temporal structure normalization. 2014 ,	2
1533	Learning abstract perceptual notions: The example of space. 2014 ,	4
1532	Speaker adaptive bottleneck features extraction for LVCSR based on discriminative learning of speaker codes. 2014 ,	
1531	A method of quadrature amplitude modulation signals identification at low signal-to-noise ratios. 2014 ,	0

1530 Post-processing of unsupervised dictionary learning in handwritten digit recognition. **2014,**

1529 . **2014,** 3

1528 Information-theoretic multi-layered supervised self-organizing maps for improved prediction performance and explicit internal representation. **2014,**

1527 Single image main objects extraction via stacked sparse auto-encoders using sharpness information. **2014,** 1

1526 Modular deep Recurrent Neural Network: Application to quadrotors. **2014,** 10

1525 Dimension reduction methods in graph drawing problem. **2014,** 2

1524 Improving the Architecture of an Autoencoder for Dimension Reduction. **2014,** 6

1523 Fixed-point feedforward deep neural network design using weights +1, 0, and $\bar{1}$. **2014,** 106

1522 Implementation and evaluation of deep neural networks (DNN) on mainstream heterogeneous systems. **2014,** 15

1521 Cross-language transfer learning for deep neural network based speech enhancement. **2014,** 10

1520 Convolutional maxout neural networks for low-resource speech recognition. **2014,** 9

1519 Learning a repertoire of actions with deep neural networks. **2014,** 13

1518 Learning visual feature descriptors for dynamic lighting conditions. **2014,** 41

1517 A fast learning algorithm for multi-layer extreme learning machine. **2014,** 11

1516 Linked Source and Target Domain Subspace Feature Transfer Learning -- Exemplified by Speech Emotion Recognition. **2014,** 15

1515 Feature Learning Using Bayesian Linear Regression Model. **2014,** 1

1514 To Be Bernoulli or to Be Gaussian, for a Restricted Boltzmann Machine. **2014,** 19

1513 A Dictionary-Based Algorithm for Dimensionality Reduction and Data Reconstruction. **2014,** 2

1512	A Hybrid Holistic/Semantic Approach for Scene Classification. 2014,	2
1511	Regularized Hierarchical Feature Learning with Non-negative Sparsity and Selectivity for Image Classification. 2014,	2
1510	Experimental demonstration and tolerancing of a large-scale neural network (165,000 synapses), using phase-change memory as the synaptic weight element. 2014,	116
1509	Study on Distributed Representation of Words with Sparse Neural Network Language Model. 2014,	
1508	. 2014, 16, 2154-2167	86
1507	SkyNet: an efficient and robust neural network training tool for machine learning in astronomy. 2014, 441, 1741-1759	58
1506	Query expansion for mixed-script information retrieval. 2014,	33
1505	3D Human Activity Recognition with Reconfigurable Convolutional Neural Networks. 2014,	52
1504	User-level psychological stress detection from social media using deep neural network. 2014,	65
1503	Learning Compact Face Representation. 2014,	26
1502	Deep Multimodal Fusion. 2014,	30
1501	Removing Structural Noise in Handwriting Images using Deep Learning. 2014,	4
1500	Scene Text Analysis using Deep Belief Networks. 2014,	5
1499	Hierarchical image representation via multi-level sparse coding. 2014,	
1498	Performance evaluation of typical unsupervised feature learning algorithms for visual object recognition. 2014,	
1497	Exploration of Deep Belief Networks for Vowel-like regions detection. 2014,	3
1496	Cross-domain sentiment classification using deep learning approach. 2014,	0
1495	Empirical Evaluation of Whitening and Optimization of Feature Learning. 2014,	1

1494	Fast Image-based Chinese Calligraphic Character Retrieval on Large Scale Data. 2014,	2
1493	The PCA-Demons Algorithm for Medical Image Registration. 2014,	
1492	A Deep Structure for Facial Expression Recognition under Partial Occlusion. 2014,	12
1491	An arousal-based neural model of infant attachment. 2014,	2
1490	Convolutional neural codes for image retrieval. 2014,	0
1489	Convolutional Neural Networks for Human Activity Recognition using Mobile Sensors. 2014,	328
1488	Dimensionality Reduction in Statistical Learning. 2014,	5
1487	Label-Denoising Auto-encoder for Classification with Inaccurate Supervision Information. 2014,	5
1486	Active hashing with joint data example and tag selection. 2014,	10
1485	Cross-modal Retrieval with Correspondence Autoencoder. 2014,	264
1484	Writer Identification using a Deep Neural Network. 2014,	7
1483	Gender classification in face images based on stacked-autoencoders method. 2014,	3
1482	An automatic setting for training restricted boltzmann machine. 2014,	4
1481	Continuous word embeddings for detecting local text reuses at the semantic level. 2014,	6
1480	Fully Automated Non-rigid Segmentation with Distance Regularized Level Set Evolution Initialized and Constrained by Deep-Structured Inference. 2014,	12
1479	Training Restricted Boltzmann Machines with Overlapping Partitions. 2014, 195-208	2
1478	A Study of Designing Compact Classifiers Using Deep Neural Networks for Online Handwritten Chinese Character Recognition. 2014,	2
1477	Global variance equalization for improving deep neural network based speech enhancement. 2014,	10

1476	Parallel Distributed Processing at 25: further explorations in the microstructure of cognition. 2014 , 38, 1024-77	59
1475	Deep learning for monaural speech separation. 2014 ,	169
1474	Deep learning vector quantization for acoustic information retrieval. 2014 ,	2
1473	Soft sensor modeling of mill level based on Deep Belief Network. 2014 ,	4
1472	Learning Discriminative Hierarchical Features for Object Recognition. 2014 , 21, 1159-1163	19
1471	A fast deep learning system using GPU. 2014 ,	14
1470	An auto-encoder based approach to unsupervised learning of subword units. 2014 ,	27
1469	Sparse representation based on a bag of spectral exemplars for acoustic event detection. 2014 ,	16
1468	Learning features from High Speed Train vibration signals with Deep Belief Networks. 2014 ,	18
1467	Optimizing Large Scale Problems With Metaheuristics in a Reduced Space Mapped by Autoencoders Application to the Wind-Hydro Coordination. 2014 , 29, 3078-3085	11
1466	. 2014 , 16, 1624-1635	18
1465	Leveraging Hierarchical Parametric Networks for Skeletal Joints Based Action Segmentation and Recognition. 2014 ,	111
1464	A machine learning approach to QoE-based video admission control and resource allocation in wireless systems. 2014 ,	28
1463	Deep learning for posture analysis in fall detection. 2014 ,	23
1462	Mathematical Modeling and Signal Processing in Speech and Hearing Sciences. 2014 ,	
1461	Deep belief network based CRF for spoken language understanding. 2014 ,	
1460	Neural Networks and Artificial Intelligence. 2014 ,	1
1459	X1000 real-time phoneme recognition VLSI using feed-forward deep neural networks. 2014 ,	16

1458	Natural Language Processing and Chinese Computing. 2014,	3
1457	Artificial Neural Networks in Pattern Recognition. 2014,	2
1456	Multi-source Deep Learning for Human Pose Estimation. 2014,	132
1455	Granular computing with multiple granular layers for brain big data processing. 2014, 1, 1-10	16
1454	Advances in Speech and Language Technologies for Iberian Languages. 2014,	1
1453	Information Retrieval Technology. 2014,	2
1452	Computational validation of the motor contribution to speech perception. 2014, 6, 461-75	6
1451	Generalized Autoencoder: A Neural Network Framework for Dimensionality Reduction. 2014,	123
1450	Dual Deep Neural Network approach to matching data in different modes. 2014,	4
1449	Deep belief networks for i-vector based speaker recognition. 2014,	42
1448	A deep learning based approach for traffic data imputation. 2014,	11
1447	Robust feature learning by stacked autoencoder with maximum correntropy criterion. 2014,	34
1446	Refinery scheduling with varying crude: A deep belief network classification and multimodel approach. 2014, 60, 2525-2532	21
1445	Contrastive auto-encoder for phoneme recognition. 2014,	3
1444	Multi-level gene/MiRNA feature selection using deep belief nets and active learning. 2014, 2014, 3957-60	40
1443	DL-SFA: Deeply-Learned Slow Feature Analysis for Action Recognition. 2014,	56
1442	Deep Boltzmann Machines based vehicle recognition. 2014,	1
1441	Recognizing human activity in smart home using deep learning algorithm. 2014,	23

1440	Deep learning of split temporal context for automatic speech recognition. 2014,	2
1439	Sound fields clusterization via neural networks. 2014,	7
1438	Deep learning to classify difference image for image change detection. 2014,	24
1437	Deep learning algorithms for detecting explosive hazards in ground penetrating radar data. 2014,	1
1436	Restricted Boltzmann Machines for Gender Classification. 2014, 274-281	
1435	Effective feature selection for image steganalysis using extreme learning machine. 2014, 23, 063020	1
1434	Large-Scale Deep Belief Nets With MapReduce. 2014, 2, 395-403	36
1433	Joint layer based deep learning framework for bilingual machine transliteration. 2014,	3
1432	Shallow Classification or Deep Learning: An Experimental Study. 2014,	4
1431	A Noisy-Or Discriminative Restricted Boltzmann Machine for Recognizing Handwriting Style Development. 2014,	2
1430	Advances in Intelligent Data Analysis XIII. 2014,	2
1429	Classification of hyperspectral image based on deep belief networks. 2014,	95
1428	Handwritten Character Recognition by Alternately Trained Relaxation Convolutional Neural Network. 2014,	48
1427	Multimodal Feature Fusion for 3D Shape Recognition and Retrieval. 2014, 21, 38-46	14
1426	Training Large Scale Deep Neural Networks on the Intel Xeon Phi Many-Core Coprocessor. 2014,	14
1425	Structural health monitoring by using a sparse coding-based deep learning algorithm with wireless sensor networks. 2014, 18, 1977-1987	28
1424	Representational learning for sonar ATR. 2014,	5
1423	Blind image quality assessment on real distorted images using deep belief nets. 2014,	21

1422	Deep Boltzmann Machines Aided Design Based on Genetic Algorithms. 2014 , 568-570, 848-851	9
1421	Tactile object recognition using deep learning and dropout. 2014 ,	48
1420	Molecular Correlates of Morphometric Subtypes in Glioblastoma Multiforme. 2014 , 423-454	
1419	Voice Activity Detection Based on Statistical Model Employing Deep Neural Network. 2014 ,	3
1418	Deep Twin Support Vector Machine. 2014 ,	2
1417	Using hierarchical dirichlet processes to regulate weight parameters of Restricted Boltzmann Machines. 2014 ,	
1416	Performance evaluation of deep bottleneck features for spoken language identification. 2014 ,	8
1415	A novel deep model for image recognition. 2014 ,	0
1414	Dynamic pre-training of Deep Recurrent Neural Networks for predicting environmental monitoring data. 2014 ,	16
1413	Multi-feature deep learning for face gender recognition. 2014 ,	3
1412	Visualizing Learning Management System data using Context-Relevant Self-Organizing Map. 2014 ,	
1411	Spectral Classification Using Restricted Boltzmann Machine. 2014 , 31,	3
1410	Segmenting hippocampus from infant brains by sparse patch matching with deep-learned features. 2014 , 17, 308-15	24
1409	Image Analysis and Recognition. 2014 ,	1
1408	Adopting the MapReduce framework to pre-train 1-D and 2-D protein structure predictors with large protein datasets. 2014 ,	
1407	Independent component analysis - Based sparse autoencoder in the application of fault diagnosis. 2014 ,	2
1406	A Kernel-Based Framework for Medical Big-Data Analytics. 2014 , 197-208	7
1405	A Deep Interpretation of Classifier Chains. 2014 , 251-262	10

1404	A Study on Layer Connection Strategies in Stacked Convolutional Deep Belief Networks. 2014 , 81-90	1
1403	Robust deep network with maximum correntropy criterion for seizure detection. 2014 , 2014, 703816	10
1402	Voice conversion using deep neural networks with speaker-independent pre-training. 2014 ,	28
1401	Feature extraction with stacked autoencoders for epileptic seizure detection. 2014 , 2014, 4184-7	34
1400	Person/vehicle classification based on deep belief networks. 2014 ,	5
1399	A Novel Inference of a Restricted Boltzmann Machine. 2014 ,	37
1398	Inductive manifold learning using structured support vector machine. 2014 , 47, 470-479	4
1397	Enhancing performance of restricted Boltzmann machines via log-sum regularization. 2014 , 63, 82-96	17
1396	Discriminative restricted Boltzmann machine for invariant pattern recognition with linear transformations. 2014 , 45, 172-180	5
1395	Deep learning based classification of focal liver lesions with contrast-enhanced ultrasound. 2014 , 125, 4057-4063	62
1394	Fuzzy deep belief networks for semi-supervised sentiment classification. 2014 , 131, 312-322	93
1393	A Machine Learning Approach for Abstraction based on the Idea of Deep Belief Artificial Neural Networks. 2014 , 69, 1499-1508	1
1392	Where do features come from?. 2014 , 38, 1078-101	63
1391	Exploring sharing patterns for video recommendation on YouTube-like social media. 2014 , 20, 675-691	23
1390	Analyzing market baskets by restricted Boltzmann machines. 2014 , 36, 209-228	9
1389	Learning deep hierarchical visual feature coding. 2014 , 25, 2212-25	75
1388	A review of unsupervised feature learning and deep learning for time-series modeling. 2014 , 42, 11-24	634
1387	Time series forecasting using a deep belief network with restricted Boltzmann machines. 2014 , 137, 47-56	325

1386	Early detection of liver disease using data visualisation and classification method. 2014 , 11, 27-35	11
1385	Data-intensive applications, challenges, techniques and technologies: A survey on Big Data. 2014 , 275, 314-347	1541
1384	Multimodal integration learning of robot behavior using deep neural networks. 2014 , 62, 721-736	132
1383	A deep learning approach to the classification of 3D CAD models. 2014 , 15, 91-106	31
1382	An Automated Approach for Land Cover Classification Based on a Fuzzy Supervised Learning Framework. 2014 , 42, 505-515	1
1381	Knowledge discovery by accuracy maximization. 2014 , 111, 5117-22	31
1380	Analog feedback in Euglena-based neural network computing [Enhancing solution-search capability through reaction threshold diversity among cells. 2014 , 140, 291-298	4
1379	Data-driven hierarchical structure kernel for multiscale part-based object recognition. 2014 , 23, 1765-78	2
1378	Wiener filtering based speech enhancement with Weighted Denoising Auto-encoder and noise classification. 2014 , 60, 13-29	80
1377	Large-Scale Synthesis of Functional Spiking Neural Circuits. 2014 , 102, 881-898	43
1376	Neural Networks. 2014 , 1, 817-855	1
1375	Publisher's Note. 2014 , 92, 124-136	5
1374	Fault diagnosis on material handling system using feature selection and data mining techniques. 2014 , 55, 15-24	17
1373	Adapting deep RankNet for personalized search. 2014 ,	22
1372	A statistical prediction model based on sparse representations for single image super-resolution. 2014 , 23, 2569-2582	269
1371	. 2014 , 15, 2191-2201	664
1370	Agents and Data Mining Interaction. 2014 ,	2
1369	Collaborative Filtering beyond the User-Item Matrix. 2014 , 47, 1-45	443

1368	The what, when, where, and how of visual word recognition. 2014 , 18, 90-8	199
1367	Non-Linear Feedback Neural Networks. 2014 ,	3
1366	Simultaneous Learning of Nonlinear Manifolds Based on the Bottleneck Neural Network. 2014 , 40, 191-209	10
1365	Reinforcement learning and human behavior. 2014 , 25, 93-8	41
1364	A 3D object recognition and pose estimation system using deep learning method. 2014 ,	9
1363	Cognition-based networks: Applying cognitive science to multimedia wireless networking. 2014 ,	5
1362	A continuous-time neural model for sequential action. 2014 , 369,	12
1361	Stacked Progressive Auto-Encoders (SPA-E) for Face Recognition Across Poses. 2014 ,	137
1360	Convolutional deep belief networks for feature extraction of EEG signal. 2014 ,	64
1359	Pattern Recognition. 2014 ,	0
1358	An Experimental Study on Speech Enhancement Based on Deep Neural Networks. 2014 , 21, 65-68	407
1357	A new active labeling method for deep learning. 2014 ,	42
1356	. 2014 ,	7
1355	Integrating supervised subspace criteria with restricted Boltzmann Machine for feature extraction. 2014 ,	6
1354	Explicit feature mapping via multi-layer perceptron and its application to Mine-Like Objects detection. 2014 ,	
1353	Dynamic boosting in deep learning using reconstruction error. 2014 ,	3
1352	Modeling gender information for emotion recognition using Denoising autoencoder. 2014 ,	20
1351	Discriminative Deep Metric Learning for Face Verification in the Wild. 2014 ,	345

1350	Spammer detection on Sina Micro-Blog. 2014,	4
1349	Restricted Boltzmann machine associative memory. 2014,	2
1348	. 2014, 1-9	427
1347	Synthesized stereo mapping via deep neural networks for noisy speech recognition. 2014,	1
1346	V4 neural network model for visual saliency and discriminative local representation of shapes. 2014	1
1345	Facial Expression Recognition via a Boosted Deep Belief Network. 2014,	293
1344	. 2014,	52
1343	Robust shape prior modeling based on Gaussian-Bernoulli restricted Boltzmann Machine. 2014,	2
1342	Big Data Opportunities and Challenges: Discussions from Data Analytics Perspectives [Discussion Forum]. 2014, 9, 62-74	143
1341	Real-time keypoint recognition using restricted Boltzmann machine. 2014, 25, 2119-26	11
1340	First Steps Towards an Intelligent Laser Welding Architecture Using Deep Neural Networks and Reinforcement Learning. 2014, 15, 474-483	153
1339	Single-layer Unsupervised Feature Learning with l2 regularized sparse filtering. 2014,	2
1338	Exploring deep neural networks and deep autoencoders in reverberant speech recognition. 2014,	2
1337	Sign Language Fingerspelling Classification from Depth and Color Images Using a Deep Belief Network. 2014,	22
1336	Comprehensive assessment for removing multiple pollutants by plants in bioretention systems. 2014, 59, 1446-1453	12
1335	Feature ensemble learning based on sparse autoencoders for image classification. 2014,	9
1334	. 2014,	
1333	. 2014,	6

1332	Recurrent Deep-Stacking Networks for sequence classification. 2014,	3
1331	An unsupervised material learning method for imaging spectroscopy. 2014,	
1330	Learning Non-linear Reconstruction Models for Image Set Classification. 2014,	41
1329	Blind Image Quality Assessment Using Semi-supervised Rectifier Networks. 2014,	52
1328	Parallel tempering with equi-energy moves for training of restricted boltzmann machines. 2014,	3
1327	Denoising predictive sparse decomposition. 2014,	1
1326	Color image processing based on Nonnegative Matrix Factorization with Convolutional Neural Network. 2014,	6
1325	Bangla handwritten character recognition using deep belief network. 2014,	22
1324	Handwritten digit recognition using sparse deep architectures. 2014,	4
1323	Chinese Computational Linguistics and Natural Language Processing Based on Naturally Annotated Big Data. 2014,	
1322	Supervised deep learning with auxiliary networks. 2014,	8
1321	Hierarchical feature representation and multimodal fusion with deep learning for AD/MCI diagnosis. 2014, 101, 569-82	536
1320	Identifying informative risk factors and predicting bone disease progression via deep belief networks. 2014, 69, 257-65	26
1319	Speech feature denoising and dereverberation via deep autoencoders for noisy reverberant speech recognition. 2014,	85
1318	Process data analytics in the era of big data. 2014, 60, 3092-3100	226
1317	Computational intelligence in control. 2014, 38, 233-242	14
1316	Deep Learning-Based Classification of Hyperspectral Data. 2014, 7, 2094-2107	1442
1315	Early diagnosis of Alzheimer's disease with deep learning. 2014,	160

1314	Interactive Knowledge Discovery and Data Mining in Biomedical Informatics. 2014,	28
1313	Cellular Automata for Efficient Image and Video Compression. 2014, 1-23	1
1312	Intelligent Computing in Bioinformatics. 2014,	3
1311	Regression-Based Context-Dependent Modeling of Deep Neural Networks for Speech Recognition. 2014, 22, 1660-1669	6
1310	Minitaur, an Event-Driven FPGA-Based Spiking Network Accelerator. 2014, 22, 2621-2628	115
1309	Switchable Deep Network for Pedestrian Detection. 2014,	127
1308	Probabilistic hypergraph based hash codes for social image search. 2014, 15, 537-550	2
1307	Machine Learning in Wireless Sensor Networks: Algorithms, Strategies, and Applications. 2014, 16, 1996-2018	494
1306	Genetic algorithms for evolving deep neural networks. 2014,	58
1305	Neural networks and neuroscience-inspired computer vision. 2014, 24, R921-R929	87
1304	Convolutional restricted Boltzmann machines learning for robust visual tracking. 2014, 25, 1383-1391	6
1303	Human acoustic fingerprints: A novel biometric modality for mobile security. 2014,	6
1302	From Animals to Animats 13. 2014,	
1301	Image steganalysis using a bee colony based feature selection algorithm. 2014, 31, 35-43	104
1300	Complex Networks V. 2014,	
1299	Deep process neural network for temporal deep learning. 2014,	8
1298	. 2014, 2, 514-525	644
1297	Improving mixing rate with tempered transition for learning restricted Boltzmann machines. 2014, 139, 328-335	7

1296	Automatic field data analyzer for closed-loop vehicle design. 2014 , 259, 321-334	5
1295	Latent information in fluency lists predicts functional decline in persons at risk for Alzheimer disease. 2014 , 55, 202-18	25
1294	SELP: A general-purpose framework for learning the norms from saliencies in spatiotemporal data. 2014 , 138, 41-60	5
1293	Exploring biologically inspired shallow model for visual classification. 2014 , 105, 1-11	0
1292	Data-driven soft sensor development based on deep learning technique. 2014 , 24, 223-233	292
1291	Intelligent data analysis of instrumented gait data in stroke patients-a systematic review. 2014 , 51, 61-72	15
1290	Learning ensemble classifiers via restricted Boltzmann machines. 2014 , 36, 161-170	25
1289	Human body part estimation from depth images via spatially-constrained deep learning. 2014 , 50, 122-129	22
1288	Sentiment visualization and classification via semi-supervised nonlinear dimensionality reduction. 2014 , 47, 758-768	45
1287	On criticality in high-dimensional data. 2014 , 26, 1329-39	4
1286	A sparse-response deep belief network based on rate distortion theory. 2014 , 47, 3179-3191	54
1285	State estimation in distribution smart grids using autoencoders. 2014 ,	16
1284	Latent tree models for rounding in spectral clustering. 2014 , 144, 448-462	5
1283	Semi-supervised multi-graph hashing for scalable similarity search. 2014 , 124, 12-21	28
1282	Natural language neural network and its application to question-answering system. 2014 , 142, 201-208	32
1281	Restricted Boltzmann machines for neuroimaging: an application in identifying intrinsic networks. 2014 , 96, 245-60	97
1280	Training restricted Boltzmann machines: An introduction. 2014 , 47, 25-39	263
1279	Kernel Methods for Image Denoising. 2014 , 419-444	

1278	Aircraft Detection by Deep Convolutional Neural Networks. 2014 , 7, 10-17	5
1277	Computational Intelligence in Control Antbio E Ruano 1. 2014 , 47, 8867-8878	1
1276	. 2014 ,	6
1275	Medical Image Retrieval: A Multimodal Approach. 2014 , 13, 125-36	26
1274	Mariana. 2014 , 7, 1772-1777	31
1273	Improvements of Local Descriptor in HOG/SIFT by BOF Approach. 2014 , E97.D, 1293-1303	2
1272	Learning Convolutional Domain-Robust Representations for Cross-View Face Recognition. 2014 , E97.D, 3239-3243	
1271	The Recognition Of Partially Occluded Objects with Support Vector Machines, Convolutional Neural Networks and Deep Belief Networks. 2014 , 4, 5-19	35
1270	PhaseFi: Phase Fingerprinting for Indoor Localization with a Deep Learning Approach. 2014 ,	3
1269	Incremental Multi-manifold Out-of-Sample Data Prediction. 2014 ,	
1268	Marine Biodiversity Classification Using Dropout Regularization. 2014 ,	3
1267	Model-free robot anomaly detection. 2014 ,	12
1266	Machine-learning in astronomy. 2014 , 10, 279-287	4
1265	Explicit knowledge extraction in information-theoretic supervised multi-layered SOM. 2014 ,	1
1264	Discriminative Autoencoders for Small Targets Detection. 2014 ,	13
1263	Power-Consumption Analysis through Web-Based Visual Data Exploration. 2014 , 47, 11257-11262	0
1262	Simulated Annealing Algorithm for Deep Learning. 2015 , 72, 137-144	60
1261	A Signal Processing Approach for Cyber Data Classification with Deep Neural Networks. 2015 , 61, 349-354	21

1260	Deep learning in exploring semantic relatedness for microblog dimensionality reduction. 2015,	2
1259	PhaseFi: Phase Fingerprinting for Indoor Localization with a Deep Learning Approach. 2015,	45
1258	Bone disease prediction and phenotype discovery using feature representation over electronic health records. 2015,	3
1257	Deep structured learning for mass segmentation from mammograms. 2015,	29
1256	Unsupervised Learning of Visual Representations Using Videos. 2015,	391
1255	Predicting image caption by a unified hierarchical model. 2015,	
1254	Automatic Identification of Conceptual Structures using Deep Boltzmann Machines. 2015,	2
1253	A Hierarchical Deep Neural Network for Fault Diagnosis on Tennessee-Eastman Process. 2015,	10
1252	Image automatic annotation via multi-view deep representation. 2015, 33, 368-377	17
1251	Representation models in single channel source separation. 2015,	2
1250	A Deep Embedding Model for Co-occurrence Learning. 2015,	4
1249	Application of deep-learning algorithms to MSTAR data. 2015,	40
1248	Big/little deep neural network for ultra low power inference. 2015,	36
1247	Statistical embeddings using a multilayer union of subspaces. 2015,	1
1246	An improved eLBPH method for facial identity recognition: Expression-specific weighted local binary pattern histogram. 2015,	1
1245	A novel pruning model of deep learning for large-scale distributed data processing. 2015,	0
1244	Deep signatures for indexing and retrieval in large motion databases. 2015,	21
1243	Signal recognition of the optical fiber vibration sensor based on two-level feature extraction. 2015,	3

1242	Learning Discriminative Reconstructions for Unsupervised Outlier Removal. 2015,	101
1241	Robust Facial Landmark Detection Under Significant Head Poses and Occlusion. 2015,	53
1240	R2FP: Rich and Robust Feature Pooling for Mining Visual Data. 2015,	1
1239	Uncertainty propagation through neural network bottleneck features. 2015,	
1238	. 2015,	4
1237	Dropout Training of Matrix Factorization and Autoencoder for Link Prediction in Sparse Graphs. 2015,	16
1236	Fault diagnosis of hydraulic pump based on stacked autoencoders. 2015,	19
1235	Distributed Data Mining Based on Deep Neural Network for Wireless Sensor Network. 2015, 11, 157453	14
1234	Improving Protein Fold Recognition by Deep Learning Networks. 2015, 5, 17573	83
1233	Selecting Autoencoder Features for Layout Analysis of Historical Documents. 2015,	7
1232	An In-Depth Context-Awareness Framework for Pervasive Video Cloud. 2015,	
1231	Sparse Autoencoder for Facial Expression Recognition. 2015,	7
1230	Advanced mean-field theory of the restricted Boltzmann machine. 2015, 91, 050101	27
1229	Predictability of critical transitions. 2015, 92, 052905	12
1228	A review on advances in deep learning. 2015,	16
1227	L1-Regularized Boltzmann Machine Learning Using Majorizer Minimization. 2015, 84, 054801	6
1226	Seven neurons memorizing sequences of alphabetical images via spike-timing dependent plasticity. 2015, 5, 14149	5
1225	Real-Time Activity Recognition on Smartphones Using Deep Neural Networks. 2015,	16

1224	Performance and strategy comparisons of human listeners and logistic regression in discriminating underwater targets. 2015 , 138, 3138-47	3
1223	Detecting and Identifying Tactile Gestures using Deep Autoencoders, Geometric Moments and Gesture Level Features. 2015 ,	14
1222	Restricted Boltzmann machine: a non-linear substitute for PCA in spectral processing. 2015 , 576, A96	10
1221	Convergence Analysis of Multilayer Feedforward Networks Trained with Penalty Terms: A Review. 2015 , 7, 89-103	2
1220	RBMMMDA: predicting multiple types of disease-microRNA associations. 2015 , 5, 13877	122
1219	Investigating sparse deep neural networks for speech recognition. 2015 ,	4
1218	An Associative Generated Model for Multi-signals Based on Deep Learning. 2015 ,	
1217	Interpolation control posture design for in-hand manipulation. 2015 ,	6
1216	Bottleneck features from SNR-adaptive denoising deep classifier for speaker identification. 2015 ,	8
1215	Recurrent Network Models for Human Dynamics. 2015 ,	263
1214	Simplified and gradual information control for improving generalization performance of multi-layered neural networks. 2015 ,	
1213	Robust in-hand manipulation of variously sized and shaped objects. 2015 ,	13
1212	From multiple views to single view. 2015 ,	1
1211	A hybrid Deep belief network approach for Financial distress prediction. 2015 ,	6
1210	Semi-supervised Energy Modeling (SSEM) for Building Clusters Using Machine Learning Techniques. 2015 , 118, 1189-1194	3
1209	Recognizing Human Activities from Raw Accelerometer Data Using Deep Neural Networks. 2015 ,	23
1208	Improving bottleneck features for automatic speech recognition using gammatone-based cochleagram and sparsity regularization. 2015 ,	1
1207	Sequential Covariance-Matrix Estimation with Application to Mitigating Catastrophic Forgetting. 2015 ,	1

1206	Transfer learning for speech and language processing. 2015,	68
1205	Autoencoder-derived Features as Inputs to Classification Algorithms for Predicting Well Failures. 2015,	11
1204	A deep neural network for audio-visual person recognition. 2015,	5
1203	License Plate Detection Based on Sparse Auto-Encoder. 2015,	2
1202	A deep learning approach to structured signal recovery. 2015,	169
1201	Is noise always harmful? Visual learning from weakly-related data. 2015,	
1200	Predicting asthma control deterioration in children. 2015, 15, 84	29
1199	Environment-dependent denoising autoencoder for distant-talking speech recognition. 2015, 2015,	6
1198	Deep neural network-based bottleneck feature and denoising autoencoder-based dereverberation for distant-talking speaker identification. 2015, 2015,	28
1197	Self-Organizing Selective Potentiality Learning to Detect Important Input Neurons. 2015,	5
1196	ApproxANN: An approximate computing framework for artificial neural network. 2015,	78
1195	Spanifold: spanning tree flattening onto lower dimension. 2015, 4, 15-31	
1194	1000fps human segmentation with deep convolutional neural networks. 2015,	9
1193	Speech selection and environmental adaptation for asynchronous speech recognition. 2015,	
1192	Deep hashing for compact binary codes learning. 2015,	193
1191	Applying deep neural networks to HEP job classification. 2015, 664, 052042	
1190	Projective Feature Learning for 3D Shapes with Multi-View Depth Images. 2015, 34, 1-11	40
1189	Open Domain Question Answering via Semantic Enrichment. 2015,	31

1188	Rolling bearing fault diagnosis using an optimization deep belief network. 2015 , 26, 115002	249
1187	Emerging directions in predictive text mining. 2015 , 5, 155-164	13
1186	Deep learning for sentiment analysis: successful approaches and future challenges. 2015 , 5, 292-303	77
1185	Relationship between class order and parameter approximation in unsupervised learning. 2015 ,	
1184	Echo State Networks for Feature Selection in Affective Computing. 2015 , 131-141	4
1183	Learning Agent for a Heat-Pump Thermostat with a Set-Back Strategy Using Model-Free Reinforcement Learning. 2015 , 8, 8300-8318	36
1182	Hierarchical Recognition System for Target Recognition from Sparse Representations. 2015 , 2015, 1-6	12
1181	Marginalised Stacked Denoising Autoencoders for Robust Representation of Real-Time Multi-View Action Recognition. 2015 , 15, 17209-31	9
1180	Parameter masks for close talk speech segregation using deep neural networks. 2015 , 31, 17004	
1179	Modeling Documents with Event Model. 2015 , 8, 562-572	1
1178	General Hyperplane Prior Distributions Based on Geometric Invariances for Bayesian Multivariate Linear Regression. 2015 , 17, 3898-3912	3
1177	Transferring Deep Convolutional Neural Networks for the Scene Classification of High-Resolution Remote Sensing Imagery. 2015 , 7, 14680-14707	73 ²
1176	A survey of remote-sensing big data. 2015 , 3,	49
1175	Deep networks for motor control functions. 2015 , 9, 32	15
1174	Unsupervised learning of digit recognition using spike-timing-dependent plasticity. 2015 , 9, 99	54 ⁰
1173	Diversity priors for learning early visual features. 2015 , 9, 104	5
1172	Robustness of spiking Deep Belief Networks to noise and reduced bit precision of neuro-inspired hardware platforms. 2015 , 9, 222	50
1171	Deep Adaptive Log-Demons: Diffeomorphic Image Registration with Very Large Deformations. 2015 , 2015, 836202	6

1170	Multi-scale compositionality: identifying the compositional structures of social dynamics using deep learning. 2015 , 10, e0118309	12
1169	Encoding sequential information in semantic space models: comparing holographic reduced representation and random permutation. 2015 , 2015, 986574	33
1168	Topologically Ordered Feature Extraction Based on Sparse Group Restricted Boltzmann Machines. 2015 , 2015, 1-12	
1167	Learning document semantic representation with hybrid deep belief network. 2015 , 2015, 650527	12
1166	Deep Extreme Learning Machine and Its Application in EEG Classification. 2015 , 2015, 1-11	67
1165	Obtaining Cross Modal Similarity Metric with Deep Neural Architecture. 2015 , 2015, 1-9	1
1164	Deep Convolutional Neural Networks for Hyperspectral Image Classification. 2015 , 2015, 1-12	760
1163	Enhancing Both Efficiency and Representational Capability of Isomap by Extensive Landmark Selection. 2015 , 2015, 1-18	2
1162	Convergence Analysis of Contrastive Divergence Algorithm Based on Gradient Method with Errors. 2015 , 2015, 1-9	2
1161	Urban Land Use and Land Cover Classification Using Remotely Sensed SAR Data through Deep Belief Networks. 2015 , 2015, 1-10	63
1160	Tool-Body Assimilation Model Based on Body Babbling and Neurodynamical System. 2015 , 2015, 1-15	9
1159	MACHINE LEARNING APPROACH FOR THE PREDICTION OF BUCKLING STRENGTH OF CORRODED STEEL PLATES. 2015 , 71, I_39-I_47	1
1158	Machine Learning in Automatic Speech Recognition: A Survey. 2015 , 32, 240-251	48
1157	An Image Retrieval Method for Binary Images Based on DBN and Softmax Classifier. 2015 , 32, 294-303	31
1156	A Deep Learning Network Approach to ab initio Protein Secondary Structure Prediction. 2015 , 12, 103-12	198
1155	Modeling neuron selectivity over simple midlevel features for image classification. 2015 , 24, 2404-14	5
1154	Deep learning for steganalysis via convolutional neural networks. 2015 ,	102
1153	Deep learning. 2015 , 521, 436-44	32486

1152	Training Restricted Boltzmann Machines. 2015 , 29, 441-444	11
1151	Stacked Multilayer Self-Organizing Map for Background Modeling. 2015 , 24, 2841-50	19
1150	Neighborhood Discriminant Hashing for Large-Scale Image Retrieval. 2015 , 24, 2827-40	129
1149	Learning representative and discriminative image representation by deep appearance and spatial coding. 2015 , 136, 23-31	5
1148	Evaluation of machine learning algorithms for treatment outcome prediction in patients with epilepsy based on structural connectome data. 2015 , 118, 219-30	95
1147	Speech and Audio Processing for Coding, Enhancement and Recognition. 2015 ,	2
1146	Deep Neural Network Modeling for Big Data Weather Forecasting. 2015 , 389-408	24
1145	Brain CT Image Classification with Deep Neural Networks. 2015 , 653-662	7
1144	Speech Recognition and Production by Machines. 2015 , 259-263	1
1143	Semi-automatic ground truth generation using unsupervised clustering and limited manual labeling: Application to handwritten character recognition. 2015 , 58, 23-28	21
1142	Computational Creativity Research: Towards Creative Machines. 2015 ,	10
1141	Kaleidoscope. 2015 , 206, 439-440	1
1140	Advances in Practical Applications of Agents, Multi-Agent Systems, and Sustainability: The PAAMS Collection. 2015 ,	7
1139	A Study of Feature Combination in Gesture Recognition with Kinect. 2015 , 459-471	
1138	From neural PCA to deep unsupervised learning. 2015 , 143-171	67
1137	Building and road detection from large aerial imagery. 2015 ,	17
1136	Editorial for the special issue of Information Sciences Journal (ISJ) on Nature-inspired algorithms for large scale global optimization. 2015 , 316, 437-439	15
1135	Thematic signatures for cleansing and enriching place-related linked data. 2015 , 29, 556-579	22

1134	Deep Neural Networks. 2015 , 127-147	5
1133	Efficient Learning Machines. 2015 ,	163
1132	Advances in Artificial Intelligence. 2015 ,	1
1131	Biologically Inspired Visual Model With Preliminary Cognition and Active Attention Adjustment. 2015 , 45, 2612-24	22
1130	Investigating Critical Frequency Bands and Channels for EEG-Based Emotion Recognition with Deep Neural Networks. 2015 , 7, 162-175	583
1129	Human Category Learning: Toward a Broader Explanatory Account. 2015 , 63, 77-114	9
1128	Deep learning for detecting robotic grasps. 2015 , 34, 705-724	648
1127	. 2015 ,	29
1126	Probabilistic Graphical Models and Deep Belief Networks for Prognosis of Breast Cancer. 2015 ,	20
1125	Self-Organized Mutual Information Maximization Learning for Improved Generalization Performance. 2015 ,	1
1124	Object Detection via a Multi-region and Semantic Segmentation-Aware CNN Model. 2015 ,	341
1123	Unsupervised adaptation of a denoising autoencoder by Bayesian Feature Enhancement for reverberant asr under mismatch conditions. 2015 ,	2
1122	Machine learning: how to get more out of HEP data and the Higgs Boson Machine Learning Challenge. 2015 ,	
1121	Weather forecasting using deep learning techniques. 2015 ,	53
1120	Query-by-example spoken term detection using bottleneck feature and Hidden Markov model. 2015 ,	
1119	Extracting deep bottleneck features for visual speech recognition. 2015 ,	6
1118	A discriminative tracklets representation for crowd analysis. 2015 ,	2
1117	Online mining in unstructured financial information: An empirical study in bulletin news. 2015 ,	0

1116	Cultural Event recognition with visual ConvNets and temporal models. 2015,	18
1115	Does diversity improve deep learning?. 2015,	4
1114	Comparing SVD and SDAE for Analysis of Islamist Forum Postings. 2015,	1
1113	Combining deep learning and unsupervised clustering to improve scene recognition performance. 2015,	1
1112	Uncertainty estimation of DNN classifiers. 2015,	10
1111	Spectral mask estimation using deep neural networks for inter-sensor data ratio model based robust DOA estimation. 2015,	6
1110	Two-dimensional multi-layer Factor Graphs in Reduced Normal Form. 2015,	3
1109	Restoring high frequency spectral envelopes using neural networks for speech bandwidth extension. 2015,	1
1108	A minimal architecture for general cognition. 2015,	
1107	Indoor localization by denoising autoencoders and semi-supervised learning in 3D simulated environment. 2015,	2
1106	Conditional High-Order Boltzmann Machine: A Supervised Learning Model for Relation Learning. 2015,	2
1105	Deep Neural Networks with Parallel Autoencoders for Learning Pairwise Relations: Handwritten Digits Subtraction. 2015,	4
1104	Manifold mapping learning by regression tree boosting. 2015,	0
1103	Single stream parallelization of generalized LSTM-like RNNs on a GPU. 2015,	19
1102	Restricted Boltzmann Machine supervectors for speaker recognition. 2015,	5
1101	Deep neural networks for understanding and diagnosing partial discharge data. 2015,	13
1100	Learning to generate chairs with convolutional neural networks. 2015,	292
1099	Auto-encoder based modeling of combustion system for circulating fluidized bed boiler. 2015,	

1098	Recognizing visual composite in real images. 2015,	0
1097	Data mapping by Restricted Boltzmann Machines for social circles detection. 2015,	
1096	Load profiles identification based on autoencoders and Kohonen Maps. 2015,	1
1095	Sound source separation for robot audition using deep learning. 2015,	5
1094	DRN: Bringing Greedy Layer-Wise Training into Time Dimension. 2015,	
1093	The visual system's internal model of the world. 2015, 103, 1359-1378	11
1092	Use of WASD neuronet in projecting the population of Oceania based on 1000-year historical data. 2015,	1
1091	Classification of waveforms using unsupervised feature learning and artificial neural network. 2015,	1
1090	The use of deep learning features in a hierarchical classifier learned with the minimization of a non-greedy loss function that delays gratification. 2015,	3
1089	An empirical analysis of different sparse penalties for autoencoder in unsupervised feature learning. 2015,	14
1088	Learning structure in gene expression data using deep architectures, with an application to gene clustering. 2015,	24
1087	EvoAE -- A New Evolutionary Method for Training Autoencoders for Deep Learning Networks. 2015,	17
1086	A data mining model of knowledge discovery based on the deep learning. 2015,	1
1085	Deep learning using partitioned data vectors. 2015,	0
1084	Deep belief networks for predicting corporate defaults. 2015,	7
1083	On the use of convolutional neural networks and augmented CSP features for multi-class motor imagery of EEG signals classification. 2015, 2015, 2620-3	41
1082	Hierarchical Extreme Learning Machine for unsupervised representation learning. 2015,	27
1081	Multi-layer feature extractions for image classification [Knowledge from deep CNNs. 2015,	0

1080	Deep Computation Model for Unsupervised Feature Learning on Big Data. 2015 , 1-1	51
1079	Learning coarse-to-fine sparselets for efficient object detection and scene classification. 2015 ,	33
1078	High performance offline handwritten Chinese character recognition using GoogLeNet and directional feature maps. 2015 ,	136
1077	Mixed handwritten and printed digit recognition in Sudoku with Convolutional Deep Belief Network. 2015 ,	6
1076	Page segmentation of historical document images with convolutional autoencoders. 2015 ,	48
1075	ICDAR 2015 competition on text line detection in historical documents. 2015 ,	17
1074	Deep supervised learning for hyperspectral data classification through convolutional neural networks. 2015 ,	355
1073	. 2015 , 8, 4895-4909	69
1072	Arabic handwritten characters recognition using Deep Belief Neural Networks. 2015 ,	22
1071	DeepFi: Deep learning for indoor fingerprinting using channel state information. 2015 ,	37
1070	Reverberant speech recognition combining deep neural networks and deep autoencoders augmented with a phone-class feature. 2015 , 2015,	10
1069	Towards Unsupervised Learning for Arabic Handwritten Recognition Using Deep Architectures. 2015 , 363-372	14
1068	Feature Selection Based on Data Clustering. 2015 , 227-236	1
1067	Downbeat tracking with multiple features and deep neural networks. 2015 ,	7
1066	A robust PHD filter with deep learning updating for multiple human tracking. 2015 ,	2
1065	Very Fast Interactive Visualization of Large Sets of High-dimensional Data. 2015 , 51, 572-581	10
1064	Localized Deep Extreme Learning Machines for Efficient RGB-D Object Recognition. 2015 ,	7
1063	Investigating deep learning for fNIRS based BCI. 2015 , 2015, 2844-7	38

1062	CANNET: Context aware nonlocal convolutional networks for semantic image segmentation. 2015,	5
1061	Tree RE-weighted belief propagation using deep learning potentials for mass segmentation from mammograms. 2015,	15
1060	Multi-layer feature extractions for image classification [Knowledge from deep CNNs. 2015,	1
1059	Latent training for convolutional neural networks. 2015,	1
1058	Intercell-Interference Cancellation and Neural Network Transmit Power Optimization for MIMO Channels. 2015,	16
1057	Bearing fault diagnosis method based on stacked autoencoder and softmax regression. 2015,	47
1056	Manifold Regularized Stacked Autoencoder for Feature Learning. 2015,	5
1055	Image super-resolution reconstruction via RBM-based joint dictionary learning and sparse representation. 2015,	
1054	Deep Learning-Based Man-Made Object Detection from Hyperspectral Data. 2015, 717-727	20
1053	L1-Norm Driven Semi-supervised Local Discriminant Projection for Robust Image Representation. 2015,	1
1052	Study on Deep Learning and Its Application in Visual Tracking. 2015,	4
1051	Stacked Face De-Noising Auto Encoders for Expression-Robust Face Recognition. 2015,	6
1050	Wishart RBM based DBN for polarimetric synthetic radar data classification. 2015,	20
1049	HEVS: A hierarchical computational model for Early stages of the Visual System. 2015,	
1048	Optimize real-valued RBM with Bidirectional Autoencoder. 2015,	
1047	A content-based image retrieval method based on manifold learning. 2015,	
1046	Target classification in oceanographic SAR images with deep neural networks: Architecture and initial results. 2015,	22
1045	Kolmogorov complexity vector: A novel data representation. 2015,	

1044	Neural network based model for visual-motor integration learning of robot's drawing behavior: Association of a drawing motion from a drawn image. 2015,	3
1043	. 2015,	59
1042	Trust Inference in Online Social Networks. 2015,	1
1041	Deepshape: Deep learned shape descriptor for 3D shape matching and retrieval. 2015,	5
1040	The Appropriate Hidden Layers of Deep Belief Networks for Speech Recognition. 2015,	1
1039	Semantic Segmentation based on Stacked Discriminative Autoencoders and Context-Constrained Weakly Supervised Learning. 2015,	6
1038	Brushstroke based sparse hybrid convolutional neural networks for author classification of Chinese ink-wash paintings. 2015,	11
1037	A water quality assessment method based on sparse autoencoder. 2015,	2
1036	A Distributed Anomaly Detection Method of Operation Energy Consumption Using Smart Meter Data. 2015,	15
1035	Fully Empirical and Data-Dependent Stability-Based Bounds. 2015, 45, 1913-26	26
1034	Evolutionary optimization of user intent recognition for transfemoral amputees. 2015,	13
1033	PCA-based PSO-BP neural network optimization algorithm. 2015,	2
1032	. 2015, 23, 472-482	19
1031	Three-Class Change Detection in Synthetic Aperture Radar Images Based on Deep Belief Network. 2015, 696-705	1
1030	Learning Pairwise Neural Network Encoder for Depth Image-based 3D Model Retrieval. 2015,	6
1029	Representation learning by Denoising Autoencoders for Clustering-based Classification. 2015,	4
1028	Shape driven kernel adaptation in Convolutional Neural Network for robust facial trait recognition. 2015,	27
1027	Real-time dynamic texture recognition using random sampling and dimension reduction. 2015,	4

1026	Dimensionality reduction strategy based on auto-encoder. 2015,	8
1025	A single microphone noise reduction algorithm based on the detection and reconstruction of spectro-temporal features. 2015, 471, 20150309	7
1024	An Auto-Encoder for Learning Conversation Representation Using LSTM. 2015, 310-317	3
1023	Scene statistics of authentically distorted images in perceptually relevant color spaces for blind image quality assessment. 2015,	2
1022	Review Sentiment Analysis Based on Deep Learning. 2015,	21
1021	A natural language processing neural network comprehending English. 2015,	
1020	Sensing WiFi network for personal IoT analytics. 2015,	4
1019	Handwritten digit recognition of Indian scripts: A cascade of distances approach. 2015,	2
1018	Discovery of the relations between genetic polymorphism and adverse drug reactions. 2015,	1
1017	The effective diagnosis of schizophrenia by using multi-layer RBMs deep networks. 2015,	2
1016	Learning deep dynamical models from image pixels. 2015, 48, 1059-1064	23
1015	Incorporating image degeneration modeling with multitask learning for image super-resolution. 2015,	4
1014	Improving deep neural network ensembles using reconstruction error. 2015,	3
1013	. 2015,	2
1012	Posed and spontaneous facial expression differentiation using deep Boltzmann machines. 2015,	6
1011	Deep neural network for face recognition based on sparse autoencoder. 2015,	7
1010	Deep learning network for face detection. 2015,	1
1009	Feature representation learning on multi-scale receptive fields for objection recognition. 2015,	1

1008	A Multichannel Deep Belief Network for the Classification of EEG Data. 2015 , 38-45	11
1007	Deep learning classifier for fall detection based on IR distance sensor data. 2015 ,	7
1006	Privacy Preserving Back-Propagation Based on BGV on Cloud. 2015 ,	10
1005	Listening with Your Eyes: Towards a Practical Visual Speech Recognition System Using Deep Boltzmann Machines. 2015 ,	12
1004	A power-aware digital feedforward neural network platform with backpropagation driven approximate synapses. 2015 ,	21
1003	References. 2015 , 485-490	
1002	Toward Application of Immunity-based Model to Gait Recognition Using Smart Phone Sensors: A Study of Various Walking States. 2015 , 60, 1856-1864	6
1001	Vehicle classification based on the fusion of deep network features and traditional features. 2015 ,	3
1000	Data Stream Classification Using Random Feature Functions and Novel Method Combinations. 2015 ,	1
999	Deep Neural Networks: A New Framework for Modeling Biological Vision and Brain Information Processing. 2015 , 1, 417-446	436
998	. 2015 ,	6
997	Time Series Prediction Using DBN and ARIMA. 2015 ,	15
996	Towards structured deep neural network for automatic speech recognition. 2015 ,	4
995	Automated Mass Detection in Mammograms Using Cascaded Deep Learning and Random Forests. 2015 ,	97
994	Deep autoencoders augmented with phone-class feature for reverberant speech recognition. 2015 ,	8
993	Towards real-time Speech Emotion Recognition using deep neural networks. 2015 ,	29
992	Hierarchical Mahalanobis Distance Clustering Based Technique for Prognostics in Applications Generating Big Data. 2015 ,	
991	Exploratory Visual Analysis and Interactive Pattern Extraction from Semi-Structured Data. 2015 , 5, 1-36	6

990 Feature Extraction Based on Generating Bayesian Network. **2015**, 255-262

989 Lung segmentation in chest radiographs using distance regularized level set and deep-structured learning and inference. **2015**, 11

988 Deep Belief Networks Oriented Clustering. **2015**, 3

987 Object Recognition Base on Deep Belief Network. **2015**, 3

986 Robust chinese traffic sign detection and recognition with deep convolutional neural network. **2015**, 18

985 . **2015**, 1

984 Towards reduction of the training and search running time complexities for non-rigid object segmentation. **2015**,

983 A new technique for restricted Boltzmann machine learning. **2015**, 5

982 Nonlinear dimensionality reduction for intrusion detection using auto-encoder bottleneck features. **2015**, 22

981 . **2015**, 17, 1899-1908 38

980 Pattern Recognition: Applications and Methods. **2015**, 1

979 . **2015**, 8

978 Fault detection and classification by unsupervised feature extraction and dimensionality reduction. **2015**, 1, 25-33 17

977 Image recognition based on deep learning. **2015**, 6

976 Social Media Processing. **2015**, 1

975 Joint training of front-end and back-end deep neural networks for robust speech recognition. **2015**, 22

974 Understanding deep image representations by inverting them. **2015**, 589

973 Convolutional recurrent neural networks: Learning spatial dependencies for image representation. **2015**, 72

972	Learning deep compact descriptor with bagging auto-encoders for object retrieval. 2015,	3
971	Unsupervised hierarchical convolutional sparse auto-encoder for high spatial resolution imagery scene classification. 2015,	0
970	Preprocessing-free surface material classification using convolutional neural networks pretrained by sparse Autoencoder. 2015,	6
969	Cost and data exploration considerations for big data prediction on the cloud. 2015,	
968	Mining gold in senior executives' pockets: An online automatically trading strategy. 2015,	
967	Visual object tracking via deep neural network. 2015,	0
966	No-reference image quality assessment with shearlet transform and deep neural networks. 2015, 154, 94-109	66
965	How to use Bag-of-Words model better for image classification. 2015, 38, 65-74	21
964	Robust Real-Time Load Profile Encoding and Classification Framework for Efficient Power Systems Operation. 2015, 30, 1897-1904	48
963	Exploiting high level feature for dynamic textures recognition. 2015, 154, 217-224	21
962	Multi-ganglion ANN based feature learning with application to P300-BCI signal classification. 2015, 18, 127-137	20
961	Domain generality versus modality specificity: the paradox of statistical learning. 2015, 19, 117-25	279
960	Support vector machine based estimation of remaining useful life: current research status and future trends. 2015, 29, 151-163	69
959	A Regression Approach to Speech Enhancement Based on Deep Neural Networks. 2015, 23, 7-19	509
958	Learning feature representations with a cost-relevant sparse autoencoder. 2015, 25, 1450034	15
957	Prediction and Informative Risk Factor Selection of Bone Diseases. 2015, 12, 79-91	13
956	A general framework for a reliable multivariate analysis and pattern recognition in high-dimensional epidemiological data, based on cluster robustness: a tutorial to enrich the epidemiologists' toolkit. 2015, 63, 9-19	3
955	Promises and Challenges of Big Data Computing in Health Sciences. 2015, 2, 2-11	138

954	Spatially constrained sparse coding scheme for natural scene categorization. 2015 , 28, 28-35	1
953	Video tracking using learned hierarchical features. 2015 , 24, 1424-35	113
952	Image Pair Analysis With Matrix-Value Operator. 2015 , 45, 2042-50	6
951	Scene recognition by manifold regularized deep learning architecture. 2015 , 26, 2222-33	145
950	Spectral&spatial Classification of Hyperspectral Data Based on Deep Belief Network. 2015 , 8, 2381-2392	722
949	How to Pretrain Deep Boltzmann Machines in Two Stages. 2015 , 201-219	
948	Measuring the usefulness of hidden units in Boltzmann machines with mutual information. 2015 , 64, 12-8	8
947	Multi-Modality Vertebra Recognition in Arbitrary Views Using 3D Deformable Hierarchical Model. 2015 , 34, 1676-93	46
946	Expected energy-based restricted Boltzmann machine for classification. 2015 , 64, 29-38	18
945	Extreme learning machines: new trends and applications. 2015 , 58, 1-16	64
944	Using neural networks to understand the information that guides behavior: a case study in visual navigation. 2015 , 1260, 227-44	3
943	Human-level control through deep reinforcement learning. 2015 , 518, 529-33	8577
942	Computation and dissipative dynamical systems in neural networks for classification. 2015 , 64, 44-52	1
941	Head motion synthesis from speech using deep neural networks. 2015 , 74, 9871-9888	25
940	Statistically Adaptive Image Denoising Based on Overcomplete Topographic Sparse Coding. 2015 , 41, 357-369	3
939	Analysis of Different Sparsity Methods in Constrained RBM for Sparse Representation in Cognitive Robotic Perception. 2015 , 80, 121-132	10
938	Algorithmic approaches to protein-protein interaction site prediction. 2015 , 10, 7	40
937	Exemplar based Deep Discriminative and Shareable Feature Learning for scene image classification. 2015 , 48, 3004-3015	46

936	Learning vector representation of medical objects via EMR-driven nonnegative restricted Boltzmann machines (eNRBM). 2015 , 54, 96-105	79
935	A generative restricted Boltzmann machine based method for high-dimensional motion data modeling. 2015 , 136, 14-22	32
934	Data visualization by nonlinear dimensionality reduction. 2015 , 5, 51-73	27
933	Image Classification Using Generative Neuro Evolution for Deep Learning. 2015 ,	29
932	Image Analysis. 2015 ,	1
931	Time Series Prediction Using Restricted Boltzmann Machines and Backpropagation. 2015 , 55, 990-999	37
930	Road network extraction: a neural-dynamic framework based on deep learning and a finite state machine. 2015 , 36, 3144-3169	103
929	Adaptive Cascade Deep Convolutional Neural Networks for face alignment. 2015 , 42, 105-112	24
928	Bicoid signal extraction with a selection of parametric and nonparametric signal processing techniques. 2015 , 13, 183-91	21
927	Selection-for-action emerges in neural networks trained to learn spatial associations between stimuli and actions. 2015 , 16 Suppl 1, 393-7	
926	Split and merge algorithm for deep learning and its application for additional classes. 2015 , 65, 137-144	3
925	Mask selective regularization for restricted Boltzmann machines. 2015 , 165, 375-383	3
924	Semi-supervised deep extreme learning machine for Wi-Fi based localization. 2015 , 166, 282-293	64
923	Domain adaption of vehicle detector based on convolutional neural networks. 2015 , 13, 1020-1031	21
922	Complex Learning in Bio-plausible Memristive Networks. 2015 , 5, 10684	31
921	Background Prior-Based Salient Object Detection via Deep Reconstruction Residual. 2015 , 25, 1309-1321	297
920	Analysis of Feature Extracting Ability for Cutting State Monitoring Using Deep Belief Networks. 2015 , 31, 29-34	42
919	A Framework for Articulated Hand Pose Estimation and Evaluation. 2015 , 41-52	8

918	Multiple deep convolutional neural networks averaging for face alignment. 2015 , 24, 033013	6
917	Predictive Deep Boltzmann Machine for Multiperiod Wind Speed Forecasting. 2015 , 6, 1416-1425	133
916	Self-supervised learning model for skin cancer diagnosis. 2015 ,	27
915	Computational Forensics. 2015 ,	1
914	Apply Stacked Auto-Encoder to Spam Detection. 2015 , 3-15	17
913	Evolution of bow-tie architectures in biology. 2015 , 11, e1004055	72
912	Learning and Intelligent Optimization. 2015 ,	
911	Query-oriented unsupervised multi-document summarization via deep learning model. 2015 , 42, 8146-8155	44
910	Artificial General Intelligence. 2015 ,	0
909	Deep Belief Network Training Improvement Using Elite Samples Minimizing Free Energy. 2015 , 29, 1551006	12
908	Vehicle Type Classification Using a Semisupervised Convolutional Neural Network. 2015 , 16, 2247-2256	175
907	Research on Latent Factor Model and its Optimization Algorithms of Machine Learning. 2015 , 734, 495-498	
906	Multi-atlas segmentation of biomedical images: A survey. 2015 , 24, 205-219	402
905	Trans-species learning of cellular signaling systems with bimodal deep belief networks. 2015 , 31, 3008-15	25
904	Image-Text Cross-Modal Retrieval via Modality-Specific Feature Learning. 2015 ,	21
903	Machine learning: Trends, perspectives, and prospects. <i>Science</i> , 2015 , 349, 255-60	33.3 2428
902	A Robust Acoustic Feature Extraction Approach Based on Stacked Denoising Autoencoder. 2015 ,	5
901	Compact Global Descriptors for Visual Search. 2015 ,	8

900	Advances in Computational Intelligence. 2015 ,	0
899	Deep and Modular Neural Networks. 2015 , 473-494	7
898	Deep Belief Networks and deep learning. 2015 ,	12
897	Deep belief networks for false alarm rejection in forward-looking ground-penetrating radar. 2015 ,	5
896	FPGA implementation of a Deep Belief Network architecture for character recognition using stochastic computation. 2015 ,	23
895	A robust hybrid model integrating enhanced inputs based extreme learning machine with PLSR (PLSR-EIEM) and its application to intelligent measurement. 2015 , 58, 533-42	12
894	Multimodal learning for facial expression recognition. 2015 , 48, 3191-3202	68
893	Learning Deep Generative Models. 2015 , 2, 361-385	129
892	Efficient Machine Learning for Big Data: A Review. 2015 , 2, 87-93	291
891	DLANet: A manifold-learning-based discriminative feature learning network for scene classification. 2015 , 157, 11-21	24
890	Provable ICA with Unknown Gaussian Noise, and Implications for Gaussian Mixtures and Autoencoders. 2015 , 72, 215-236	8
889	Autonomous Learning of State Representations for Control: An Emerging Field Aims to Autonomously Learn State Representations for Reinforcement Learning Agents from Their Real-World Sensor Observations. 2015 , 29, 353-362	21
888	Neural Networks and Deep Learning. 2015 , 875-936	16
887	Voice conversion using speaker-dependent conditional restricted Boltzmann machine. 2015 , 2015,	5
886	Efficient Feature Coding Based on Auto-encoder Network for Image Classification. 2015 , 628-642	6
885	Feature maps driven no-reference image quality prediction of authentically distorted images. 2015 ,	5
884	Forecasting exchange rate using deep belief networks and conjugate gradient method. 2015 , 167, 243-253	146
883	Deep learning applications and challenges in big data analytics. 2015 , 2,	1033

882	Dimensionality Reduction via Regression in Hyperspectral Imagery. 2015 , 9, 1026-1036	28
881	Fuzzy Restricted Boltzmann Machine for the Enhancement of Deep Learning. 2015 , 23, 2163-2173	132
880	Stacked Denoising Auto-Encoders for Short-Term Time Series Forecasting. 2015 , 463-486	5
879	Facial Expression Recognition via Deep Learning. 2015 , 32, 347-355	55
878	Research in Computational Molecular Biology. 2015 ,	3
877	Deeply-Learned Feature for Age Estimation. 2015 ,	122
876	Visual Domain Adaptation: A survey of recent advances. 2015 , 32, 53-69	459
875	Deep Belief Network-Based Approaches for Link Prediction in Signed Social Networks. 2015 , 17, 2140-2169	40
874	Efficient image representation for object recognition via pivots selection. 2015 , 9, 383-391	2
873	. 2015 , 17, 816-827	7
872	Exploiting autoencoders for three-phase state estimation in unbalanced distributions grids. 2015 , 123, 108-118	12
871	Multimodal neuroimaging feature learning for multiclass diagnosis of Alzheimer's disease. 2015 , 62, 1132-40	287
870	LV Segmentation Using Stochastic Resonance and Evolutionary Cellular Automata. 2015 , 29, 1557002	6
869	AU-inspired Deep Networks for Facial Expression Feature Learning. 2015 , 159, 126-136	146
868	Learning an Aesthetic Photo Cropping Cascade. 2015 ,	7
867	VFM: Visual Feedback Model for Robust Object Recognition. 2015 , 30, 325-339	3
866	Large-scale weakly supervised object localization via latent category learning. 2015 , 24, 1371-85	38
865	Neural Networks for Sequential Data: a Pre-training Approach based on Hidden Markov Models. 2015 , 169, 323-333	8

864	. 2015 , 32, 35-52	116
863	Wafer Map Failure Pattern Recognition and Similarity Ranking for Large-Scale Data Sets. 2015 , 28, 1-12	93
862	The AdaBoost algorithm for vehicle detection based on CNN features. 2015 ,	4
861	RETRACTED: Theory, Methods, and Applications of Coevolution in Protein Contact Prediction. 2015	
860	Deep Learning Based Feature Selection for Remote Sensing Scene Classification. 2015 , 12, 2321-2325	423
859	Real-time automated counterfeit integrated circuit detection using x-ray microscopy. 2015 , 54, D25	22
858	Unsupervised Multi-modal Learning. 2015 , 343-346	
857	Identifying Best Hyperparameters for Deep Architectures Using Random Forests. 2015 , 29-42	1
856	Convolutional Neural Networks for Clothes Categories. 2015 , 120-129	5
855	Applications of Deep Learning for Smart Water Networks. 2015 , 119, 479-485	18
854	The effect of different hidden unit number of sparse autoencoder. 2015 ,	8
853	Scalable energy-efficient, low-latency implementations of trained spiking Deep Belief Networks on SpiNNaker. 2015 ,	37
852	Reduced reference image quality assessment via Boltzmann Machines. 2015 ,	8
851	Classification of uncooperative vehicles with sparse laser Doppler vibrometry measurements. 2015 ,	
850	Advanced Parallel Processing Technologies. 2015 ,	
849	Advances in Intelligent Data Analysis XIV. 2015 ,	
848	Multimodal Learning Based Approaches for Link Prediction in Social Networks. 2015 , 123-133	5
847	Mixed generative and supervised learning modes in Deep Predictive Coding Networks. 2015 ,	

846	DeepSign: Deep learning for automatic malware signature generation and classification. 2015,	85
845	Language-independent Query Representation for IR Model Parameter Estimation on Unlabeled Collections. 2015,	
844	A Hybrid of Deep Network and Hidden Markov Model for MCI Identification with Resting-State fMRI. 2015, 9349, 573-580	11
843	Case-Based Reasoning Research and Development. 2015,	1
842	Short-term load forecasting for smart water and gas grids: A comparative evaluation. 2015,	0
841	Bengali handwritten numeric character recognition using denoising autoencoders. 2015,	5
840	Denoising Convolutional Neural Network. 2015,	6
839	The identification of cis-regulatory elements: A review from a machine learning perspective. 2015, 138, 6-17	30
838	Correspondence Autoencoders for Cross-Modal Retrieval. 2015, 12, 1-22	15
837	Deep Collaborative Filtering via Marginalized Denoising Auto-encoder. 2015,	191
836	. 2015, 17, 1923-1935	39
835	Modeling and Analysis of Scholar Mobility on Scientific Landscape. 2015,	2
834	Topological obstructions in the way of data-driven collective variables. 2015, 142, 044102	13
833	An autoencoder of stellar spectra and its application in automatically estimating atmospheric parameters. 2015, 452, 158-168	15
832	Improved language identification using deep bottleneck network. 2015,	10
831	. 2015, 10, 2108-2118	135
830	Learning Efficient Sparse and Low Rank Models. 2015, 37, 1821-33	74
829	Multimodal deep support vector classification with homologous features and its application to gearbox fault diagnosis. 2015, 168, 119-127	202

828	Multimodal Learning with Deep Boltzmann Machine for Emotion Prediction in User Generated Videos. 2015,	19
827	. 2015, 17, 2008-2020	80
826	Deep learning for multi-label land cover classification. 2015,	5
825	GraRep. 2015,	626
824	Continuous and Discrete Deep Classifiers for Data Integration. 2015, 264-274	1
823	Unsupervised Spectral-Spatial Feature Learning With Stacked Sparse Autoencoder for Hyperspectral Imagery Classification. 2015, 12, 2438-2442	234
822	A fast and efficient pre-training method based on layer-by-layer maximum discrimination for deep neural networks. 2015, 168, 669-680	20
821	Speech emotion recognition using Deep Dropout Autoencoders. 2015,	2
820	Comparison of auto-encoders with different sparsity regularizers. 2015,	3
819	Normal sparse Deep Belief Network. 2015,	27
818	Algorithmic Learning Theory. 2015,	1
817	Auto-encoder-based shared mid-level visual dictionary learning for scene classification using very high resolution remote sensing images. 2015, 9, 639-647	45
816	A feature transformation method using multiobjective genetic programming for two-class classification. 2015,	1
815	Controlling the hidden layers' output to optimizing the training process in the Deep Neural Network algorithm. 2015,	1
814	Representation Learning for Single-Channel Source Separation and Bandwidth Extension. 2015, 23, 2398-2409	12
813	Natural Language Processing and Chinese Computing. 2015,	1
812	Infrared ultraspectral signature classification based on a restricted Boltzmann machine with sparse and prior constraints. 2015, 36, 4724-4747	10
811	A comparative study of two prediction models for brain tumor progression. 2015,	

810	Statistical process monitoring with integration of data projection and one-class classification. 2015 , 149, 1-11	12
809	Recognition of online handwritten Bangla characters using hierarchical system with Denoising Autoencoders. 2015 ,	3
808	Deep Learning for Just-in-Time Defect Prediction. 2015 ,	133
807	Effective insect recognition using a stacked autoencoder with maximum correntropy criterion. 2015 ,	1
806	Robust feature learning by improved auto-encoder from non-Gaussian noised images. 2015 ,	1
805	Statistical-Mechanical Analysis of Pre-training and Fine Tuning in Deep Learning. 2015 , 84, 034003	6
804	Feature selection and feature learning for high-dimensional batch reinforcement learning: A survey. 2015 , 12, 229-242	22
803	Experimental Demonstration and Tolerancing of a Large-Scale Neural Network (165 000 Synapses) Using Phase-Change Memory as the Synaptic Weight Element. 2015 , 62, 3498-3507	542
802	Brain Informatics and Health. 2015 ,	4
801	Feedforward kernel neural networks, generalized least learning machine, and its deep learning with application to image classification. 2015 , 37, 125-141	38
800	High-resolution remote-sensing imagery retrieval using sparse features by auto-encoder. 2015 , 6, 775-783	61
799	Deep learning of EEG signals for emotion recognition. 2015 ,	30
798	A review of datasets and load forecasting techniques for smart natural gas and water grids: Analysis and experiments. 2015 , 170, 448-465	30
797	Deep Learning for Feature Extraction of Arabic Handwritten Script. 2015 , 371-382	15
796	Learning joint features for color and depth images with Convolutional Neural Networks for object classification. 2015 ,	
795	Deep learning and the information bottleneck principle. 2015 ,	226
794	A Review of Emerging Technologies for the Management of Diabetes Mellitus. 2015 , 62, 2735-49	64
793	Deep learning in partially-labeled data streams. 2015 ,	15

792	An optimized dimensionality reduction model for high-dimensional data based on Restricted Boltzmann Machines. 2015,	5
791	. 2015, 103, 1398-1416	90
790	Intelligent Computing Theories and Methodologies. 2015,	
789	A Real-Time Hand Posture Recognition System Using Deep Neural Networks. 2015, 6, 1-23	54
788	Shared representation learning for heterogenous face recognition. 2015,	2
787	High-Dimensional Indexing by Sparse Approximation. 2015,	6
786	An experimental comparison of feature selection methods on two-class biomedical datasets. 2015, 66, 1-10	43
785	Visual Tracking Based on Convolutional Deep Belief Network. 2015, 103-115	1
784	Natural scene recognition based on Convolutional Neural Networks and Deep Boltzmann Machines. 2015,	7
783	The Unsupervised Hierarchical Convolutional Sparse Auto-Encoder for Neuroimaging Data Classification. 2015, 156-166	12
782	A Deep Generative Architecture for Postfiltering in Statistical Parametric Speech Synthesis. 2015, 23, 2003-2014	21
781	Head detection based on convolutional neural network with multi-stage weighted feature. 2015,	0
780	. 2015, 17, 1936-1948	65
779	Towards dropout training for convolutional neural networks. 2015, 71, 1-10	123
778	Deep Neural Networks for Wind Energy Prediction. 2015, 430-443	4
777	Machine Learning and Knowledge Discovery in Databases. 2015,	1
776	Brain Informatics-Based Big Data and the Wisdom Web of Things. 2015, 30, 2-7	21
775	Face Recognition by Exploiting Local Gabor Features With Multitask Adaptive Sparse Representation. 2015, 64, 2605-2615	20

774	Cognition-Based Networks: A New Perspective on Network Optimization Using Learning and Distributed Intelligence. 2015 , 3, 1512-1530	66
773	Motion Sequence Recognition with Multi-sensors Using Deep Convolutional Neural Network. 2015 , 13-23	3
772	Multiple Convolutional Neural Network for Feature Extraction. 2015 , 104-114	2
771	Hyperparameter search for deep convolutional neural network using effect factors. 2015 ,	2
770	Fracture detection in x-ray images through stacked random forests feature fusion. 2015 ,	27
769	Data driven injection molding process monitoring using sparse auto encoder technique. 2015 ,	2
768	A Deep Awareness Framework for Pervasive Video Cloud. 2015 , 3, 2227-2237	7
767	Chart classification by combining deep convolutional networks and deep belief networks. 2015 ,	3
766	Stretching deep architectures for text recognition. 2015 ,	10
765	A new method based on bag of filters for character recognition in scene images by learning. 2015 ,	2
764	Reconstruction combined training for convolutional neural networks on character recognition. 2015 ,	3
763	Deep learning based language and orientation recognition in document analysis. 2015 ,	5
762	Improving object detection with deep convolutional networks via Bayesian optimization and structured prediction. 2015 ,	94
761	Improving deep neural networks using softplus units. 2015 ,	30
760	A bound for the convergence rate of parallel tempering for sampling restricted Boltzmann machines. 2015 , 598, 102-117	5
759	Stochastic least squares learning for deep architectures. 2015 ,	
758	Using robots to investigate the evolution of adaptive behavior. 2015 , 6, 168-173	4
757	The hybrid synthetic microdata platform: a method for statistical disclosure control. 2015 , 13, 178-82	1

756	Robust dimension reduction. 2015 , 7, 63-69	4
755	Audio-visual speech recognition using deep learning. 2015 , 42, 722-737	263
754	Tensor representation learning based image patch analysis for text identification and recognition. 2015 , 48, 1211-1224	16
753	An Adaptive Approach of Tamil Character Recognition Using Deep Learning with Big Data-A Survey. 2015 , 557-567	2
752	3D object retrieval with stacked local convolutional autoencoder. 2015 , 112, 119-128	64
751	Saliency-Guided Unsupervised Feature Learning for Scene Classification. 2015 , 53, 2175-2184	362
750	The Potential Energy of an Autoencoder. 2015 , 37, 1261-73	40
749	Preface. Artificial neural networks. 2015 , 1260, v	11
748	An Overview of Deep Generative Models. 2015 , 32, 131-139	28
747	Feature learning based on SAEBCA network for human gesture recognition in RGBD images. 2015 , 151, 565-573	75
746	Adaptive bit allocation hashing for approximate nearest neighbor search. 2015 , 151, 719-728	4
745	Learning understandable neural networks with nonnegative weight constraints. 2015 , 26, 62-9	73
744	Recurrent Neural Networks and Related Models. 2015 , 237-266	2
743	A 3D model recognition mechanism based on deep Boltzmann machines. 2015 , 151, 593-602	45
742	Automatic Speech Recognition. 2015 ,	75
741	Emerging ICT for Bridging the Future - Proceedings of the 49th Annual Convention of the Computer Society of India (CSI) Volume 1. 2015 ,	4
740	Proceedings of ELM-2014 Volume 1. 2015 ,	
739	Spiking Deep Convolutional Neural Networks for Energy-Efficient Object Recognition. 2015 , 113, 54-66	314

738	Fully automatic segmentation of ultrasound common carotid artery images based on machine learning. 2015 , 151, 161-167	40
737	Complex Systems Design & Management Asia. 2015 ,	
736	Set-label modeling and deep metric learning on person re-identification. 2015 , 151, 1283-1292	23
735	Deep Reconstruction Models for Image Set Classification. 2015 , 37, 713-27	114
734	Hierarchical deep belief networks based point process model for keywords spotting in continuous speech. 2015 , 28, 483-496	6
733	Latent feature representation with stacked auto-encoder for AD/MCI diagnosis. 2015 , 220, 841-59	313
732	Classification of airborne laser scanning data using JointBoost. 2015 , 100, 71-83	119
731	Stacked Extreme Learning Machines. 2015 , 45, 2013-25	85
730	Blind image quality assessment via deep learning. 2015 , 26, 1275-86	218
729	Automated intelligent system for sound signalling device quality assurance. 2015 , 294, 600-611	17
728	A linear approach for sparse coding by a two-layer neural network. 2015 , 149, 1315-1323	5
727	Phenomapping for novel classification of heart failure with preserved ejection fraction. 2015 , 131, 269-79	499
726	Deep unsupervised network for multimodal perception, representation and classification. 2015 , 71, 83-98	34
725	Discriminative Deep Face Shape Model for Facial Point Detection. 2015 , 113, 37-53	29
724	Deep learning in neural networks: an overview. 2015 , 61, 85-117	8538
723	Learning deep representations via extreme learning machines. 2015 , 149, 308-315	72
722	Local deep feature learning framework for 3D shape. 2015 , 46, 117-129	18
721	Compressed-Domain Ship Detection on Spaceborne Optical Image Using Deep Neural Network and Extreme Learning Machine. 2015 , 53, 1174-1185	274

720	Two-layer contractive encodings for learning stable nonlinear features. 2015 , 64, 4-11	19
719	Features, Color Spaces, and Boosting: New Insights on Semantic Classification of Remote Sensing Images. 2015 , 53, 280-295	79
718	Information Granularity, Big Data, and Computational Intelligence. 2015 ,	90
717	Artificial Neural Networks. 2015 ,	8
716	Learning Hierarchical Features for Automated Extraction of Road Markings From 3-D Mobile LiDAR Point Clouds. 2015 , 8, 709-726	93
715	Neural network-based approaches for building high dimensional and quantum dynamics-friendly potential energy surfaces. 2015 , 115, 1012-1020	140
714	Finding quasi core with simulated stacked neural networks. 2015 , 294, 1-14	4
713	Knowledge and Systems Engineering. 2015 ,	1
712	Structural information aware deep semi-supervised recurrent neural network for sentiment analysis. 2015 , 9, 171-184	17
711	Accelerated learning for Restricted Boltzmann Machine with momentum term. 2015 , 187-192	
710	Beyond trial types. 2015 , 79, 425-31	
709	Fast Chinese calligraphic character recognition with large-scale data. 2015 , 74, 7221-7238	8
708	Descriptor optimization for multimedia indexing and retrieval. 2015 , 74, 1267-1290	7
707	DREAMING OF ATMOSPHERES. 2016 , 820, 107	22
706	Gait recognition based on model-based methods and deep belief networks. 2016 , 8, 237	5
705	Comparing 2D image features on viewpoint independence using 3D anthropometric dataset. 2016 , 1, 412	1
704	Lithium to safeguard the grid [batteries for energy storage]. 2016 , 11, 66-68	2
703	An introduction to learning algorithms and potential applications in geomorphometry and earth surface dynamics. 2016 ,	1

702	Instance-Wise Denoising Autoencoder for High Dimensional Data. 2016 , 2016, 1-13	2
701	A Survey of Anatomy Detection. 2016 , 25-44	0
700	Cognitive Systems for the FoodWaterEnergy Nexus. 2016 , 255-282	2
699	An introduction to learning algorithms and potential applications in geomorphometry and Earth surface dynamics. 2016 , 4, 445-460	19
698	Machine learning and its application in microscopic image analysis. 2016 , 97-127	7
697	Deep Learning in Agent-Based Models: A Prospectus. 2016 ,	6
696	Neural Network Based Transmit Power Control and Interference Cancellation for MIMO Small Cell Networks. 2016 , E99.B, 1157-1169	6
695	Community Detection Fusing Graph Attention Network. 2022 , 10, 4155	0
694	A review of emerging research directions in Abstract Visual Reasoning. 2022 ,	2
693	Transfer Enmeli Derin Aġar ile İġat Alanında Kask Tespiti.	0
692	An anomaly detection method based on random convolutional kernel and isolation forest for equipment state monitoring. 2022 , 24, 758-770	0
691	Design of a Deep Network Model for Weed Classification. 2023 , 59-68	0
690	Hyperspectral Image Classification Using 3D Capsule-Net Based Architecture. 2022 , 12, 11299	0
689	A quantitative identification method based on CWT and CNN for external and inner broken wires of steel wire ropes. 2022 , e11623	0
688	Model-informed unsupervised deep learning approaches to frequency and phase correction of MRS signals.	0
687	Cassava Leaf Disease Classification Based On CNN. 16, 63-69	1
686	Deep Appearance Prefiltering.	0
685	AccNet: occluded scene text enhancing network with accretion blocks. 2023 , 34,	0

- 684 A novel deep learning approach for tourism volume forecasting with tourist search data. 1
- 683 A deep learning approach to Reduced Order Modelling of parameter dependent partial differential equations. 0
- 682 SAOCNN: Self-Attention and One-Class Neural Networks for Hyperspectral Anomaly Detection. **2022**, 14, 5555 0
- 681 Stacking- and voting-based ensemble deep learning models (SEDL and VEDL) and active learning (AL) for mapping land subsidence. 0
- 680 A survey of identity recognition via data fusion and feature learning. **2022**, 0
- 679 Hybrid Convolutional Neural Network-Multilayer Perceptron Model for Solar Radiation Prediction. 0
- 678 Early Diagnosis of Parkinson's Disease: A Combined Method Using Deep Learning and Neuro-Fuzzy Techniques. **2022**, 107788 1
- 677 Deep Neural Networks. **2023**, 9-30 0
- 676 Architecture Design for Stacked AEs and DBNs. **2023**, 39-59 0
- 675 Optimization Strategies for the k-Nearest Neighbor Classifier. **2023**, 4, 0
- 674 A review on autoencoder based representation learning for fault detection and diagnosis in industrial processes. **2022**, 231, 104711 1
- 673 VIBUS: Data-efficient 3D scene parsing with Viewpoint Bottleneck and Uncertainty-Spectrum modeling. **2022**, 194, 302-318 0
- 672 Equivalence of machine learning models in modeling chaos. **2022**, 165, 112831 0
- 671 Retentive multimodal scale-variable anomaly detection framework with limited data groups for liquid rocket engine. **2022**, 205, 112171 0
- 670 Analysis of Production Simulation Results for Transient Stability of Multi-energy Power System Based on Deep Belief Network. **2022**, 0
- 669 Dynamic Frequency Regulation of Microgrid Based on Double-layer Adaptive Virtual Inertia Control of DFIG. **2022**, 0
- 668 Physics Informed Neural Network using Finite Difference Method. **2022**, 0
- 667 ConvLSTM-CRF: Sea Ice Concentration Prediction with ConvLSTM and Conditional Random Fields. **2022**, 0

666	Task Detection in Continual Learning via Familiarity Autoencoders. 2022,	o
665	Development of Prediction System for Ship Movements Using Machine Learning and Radar Images. 2022,	o
664	Trajectory Prediction Using Multivariate Time-series Data Stream Learning with Fused Kalman-filter and Evolving Correlated Horizons Feature Selection. 2022,	o
663	Zoom-In Neural Network Deep-Learning Model for Alzheimer's Disease Assessments. 2022, 22, 8887	o
662	Challenges and opportunities of deep learning-based process fault detection and diagnosis: a review.	o
661	AI-based object detection latest trends in remote sensing, multimedia and agriculture applications. 13,	1
660	Wear patterns in knee OA correlate with native limb geometry. 10,	o
659	Category pattern mining based image retrieval. 2022,	o
658	Tool wear prediction based on convolutional bidirectional LSTM model with improved particle swarm optimization.	o
657	Extending the reach of quantum computing for materials science with machine learning potentials. 2022, 12, 115321	o
656	Blind image quality assessment for anchor-assisted adaptation to practical situations.	o
655	Green Energy Using Machine and Deep Learning. 2022, 429-444	o
654	Deep-learning-based image preprocessing for particle image velocimetry. 2023, 130, 103406	o
653	Artificial intelligence/machine learning techniques in hydroclimatology: A demonstration of deep learning for future assessment of stream flow under climate change. 2023, 247-273	o
652	Semi-supervised learning with graph convolutional extreme learning machines. 2023, 213, 119164	o
651	Triple-Node FinFET with Non-Ohmic Schottky Junctions for Synaptic Devices. 2022, 1-1	o
650	Research on CGAN-BERT and RGAN-BERT Models for Short Text Classification based on Semi-Supervised Model. 2022,	o
649	Infrared and visible image fusion based on residual dense network and gradient loss. 2023, 128, 104486	1

- 648 Solid Waste Detection in Cities Using Remote Sensing Imagery Based on a Location-Guided Key Point Network With Multiple Enhancements. **2023**, 16, 191-201 ○
- 647 Feature reduction techniques for software bug prediction. **2022**, ○
- 646 Deep Contrastive Principal Component Analysis Adaptive to Nonlinear Data. **2022**, 70, 5738-5750 ○
- 645 MTUL: Towards Mutation Testing of Unsupervised Learning Systems. **2022**, 22-40 ○
- 644 Sparse Kernel Transfer Learning. **2022**, 39-52 ○
- 643 Modern Value Based Reinforcement Learning: A Chronological Review. **2022**, 1-1 ○
- 642 Deep learning-assisted analysis of automobiles handling performances. **2022**, 13, 78-95 ○
- 641 Unsupervised Cryo-EM Images Denoising and Clustering based on Deep Convolutional Autoencoder and K-Means++. **2022**, 1-1 ○
- 640 Data-Efficient Estimation of Remaining Useful Life for Machinery With a Limited Number of Run-to-Failure Training Sequences. **2022**, 10, 129443-129464 ○
- 639 Solder joint defect inspection method based on ConvNeXt-YOLOX. **2022**, 1-1 ○
- 638 CNN-Based Ruled Line Removal in Handwritten Documents. **2022**, 530-544 ○
- 637 Improving Autoencoders Performance for Hyperspectral Unmixing Using Clustering. **2022**, 102-121 1
- 636 Convolutional Neural Networks for Problems in Transport Phenomena: a Theoretical Minimum. **2022**, ○
- 635 A Cross-Attention Fusion Based Graph Convolution Auto-Encoder for Open Relation Extraction. **2023**, 31, 476-485 ○
- 634 A fault diagnosis method of rolling bearing based on improved deep residual shrinkage networks. **2023**, 206, 112282 ○
- 633 InstantCITY: Synthesising morphologically accurate geospatial data for urban form analysis, transfer, and quality control. **2023**, 195, 90-104 ○
- 632 Sequential Order-Aware Coding-Based Robust Subspace Clustering for Human Action Recognition in Untrimmed Videos. **2023**, 32, 13-28 ○
- 631 Data-driven spatiotemporal modeling for structural dynamics on irregular domains by stochastic dependency neural estimation. **2023**, 404, 115831 ○

- 630 Linearizing nonlinear dynamics using deep learning. **2023**, 170, 108104 ○
- 629 The Gap in the Thickness: Estimating Effectiveness of Pulmonary Nodule Detection in Thick- and Thin-Section CT Images with 3D Deep Neural Networks. **2023**, 229, 107290 ○
- 628 Geometric learning for computational mechanics Part II: Graph embedding for interpretable multiscale plasticity. **2023**, 404, 115768 ○
- 627 GDN: Guided down-sampling network for real-time semantic segmentation. **2023**, 520, 205-215 ○
- 626 Madhubani Art Classification using transfer learning with deep feature fusion and decision fusion based techniques. **2023**, 119, 105734 ○
- 625 Unsupervised Fault Detection Driven by Multivariate Time Series for Aeroengines. **2023**, 36, ○
- 624 Adversarial data hiding with only one pixel. **2023**, 60, 103222 ○
- 623 Local Linear Embedding with Adaptive Neighbors. **2023**, 136, 109205 ○
- 622 SolarGAN: Synthetic annual solar irradiance time series on urban building facades via Deep Generative Networks. **2023**, 12, 100223 ○
- 621 Elastic adversarial deep nonnegative matrix factorization for matrix completion. **2023**, 621, 562-579 ○
- 620 Data-driven modeling of ultra-supercritical unit coordinated control system by improved transformer network. **2023**, 266, 126473 ○
- 619 Solving multi-objective optimization problem of convolutional neural network using fast forward quantum optimization algorithm: Application in digital image classification. **2023**, 176, 103370 1
- 618 Latent Features Embedded Dynamic Graph Evolution Deep Clustering Network. **2023**, 205, 108892 ○
- 617 Deep learning-enabled anomaly detection for IoT systems. **2023**, 21, 100656 ○
- 616 Unsupervised Structure-Consistent Image-to-Image Translation. **2022**, 3-21 ○
- 615 Extracting Multiple Nodes in a Brain Region of Interest for Brain Functional Network Estimation and Classification. **2022**, 10, 3408-3423 ○
- 614 Recognition of Aquatic Invasive Species Larvae Using Autoencoder-Based Feature Averaging. **2022**, 145-161 ○
- 613 Performance Evaluation of Deep Learning Models for Image Classification Over Small Datasets: Diabetic Foot Case Study. **2022**, 10, 124373-124386 ○

- 612 Target-Side Language Model for Reference-Free Machine Translation Evaluation. **2022**, 45-53 1
- 611 An Online Multiple Open-Switch Fault Diagnosis Method for T-type Three-level Inverters Based on Multi-modal Deep Residual Filter Network. **2022**, 1-10 1
- 610 R-UNet++: A Local Segmentation Network for the Classification of Oracle Bone Materials. **2022**, 34, 415-424 0
- 609 CLASSIFICATION OF EEG SIGNAL BY METHODS OF MACHINE LEARNING. **2020**, 16, 56-63 0
- 608 Fabric Defect Detection Using Deep Convolution Neural Network. **2021**, 8, 143-150 0
- 607 A Novel Method for Identifying Safety Risk. **2022**, 0
- 606 A short-wave reconnaissance equipment scheduling technology based on Hopfield network. **2022**, 0
- 605 Deep Learning. **2023**, 267-379 0
- 604 Learning the Space of Deep Models. **2022**, 0
- 603 Unsupervised Feature Learning in Activity Recognition using Convolutional Denoising Autoencoders with Squeeze and Excitation Networks. **2022**, 0
- 602 Controlled Multi-modal Image Generation for Plant Growth Modeling. **2022**, 0
- 601 Investigating Nonnegative Autoencoders for Efficient Audio Decomposition. **2022**, 0
- 600 Efficient Unsupervised Learning for Plankton Images. **2022**, 0
- 599 A Semi-Supervised Learning-based Dynamic Prediction Method for Semi-molten Condition of Fused Magnesium Furnace. **2022**, 0
- 598 KRNet: Towards Efficient Knowledge Replay. **2022**, 0
- 597 Predictive Models Using Supervised Neural Network for Pollutant Removal Efficiency in Petrochemical Wastewater Treatment. **2022**, 0
- 596 Boosting the Discriminant Power of Naive Bayes. **2022**, 0
- 595 A Novel Hybrid Model for Gasoline Prices Forecasting Based on Lasso and CNN. **2022**, 3, 206-218 0

- 594 Recurrent Neural Network Architecture for Communication Log Analysis. **2022,** ○
- 593 Lightning Forecast Deep Learning Model Based on Bayesian Optimization and its Application in Power Grid. **2022,** ○
- 592 Deep Learning Techniques for Biomedical Image Analysis in Healthcare. **2022,** 1199-1214 ○
- 591 An Improved Approach for Generative Model-Based Product Image Anomaly Detection. **2022,** 1 ○
- 590 Autoencoder-Aided Visualization of Collections of Morse Complexes. **2022,** ○
- 589 VCL-GAN: A Variational Contrastive Learning Generative Adversarial Network for Image Synthesis. **2022,** ○
- 588 Lost-Found Item Net for Classification Based on Inception-Resnet. **2022,** ○
- 587 Crop Classification on Deep Learning. **2022,** ○
- 586 Uniform Manifold Approximation with Two-phase Optimization. **2022,** ○
- 585 Machine learning opportunities to conduct high-fidelity earthquake simulations in multi-scale heterogeneous geology. 10, ○
- 584 Hyperspectral Image Data Construction and Expansion Method of Ground Object. **2023,** 161-169 ○
- 583 Uncovering 2-D toroidal representations in grid cell ensemble activity during 1-D behavior. ○
- 582 Improving Unsupervised Anomalous Sound Detection Performance of Autoencoder and Its Variant with Pretrained Deep Belief Network. **2022,** ○
- 581 A Survey of Image Classification Algorithms based on Convolution Neural Network. 15, 191-198 ○
- 580 Does big data serve policy? Not without context. An experiment with in silico social science. ○
- 579 Integrated Module of Multidimensional Omics for Peripheral Biomarkers (iMORE) in patients with major depressive disorder: rationale and design of a prospective multicentre cohort study. **2022,** 12, e067447 ○
- 578 Sentiment Analysis of Text to Speech with Emotion. ○
- 577 Autoencoder Networks. **2022,** 249-269 ○

- 576 A Survey of Few-Shot Learning Research Based on Deep Neural Network. **2022**, 2, 110-115 ○
- 575 Thermodynamics of the Ising Model Encoded in Restricted Boltzmann Machines. **2022**, 24, 1701 ○
- 574 Multidimensional Analysis of the Mother-to-child Transmission Risk Factors in Chronic Hepatitis B Virus Infection in Pregnant Women in Vietnam (Preprint). ○
- 573 Autoencoder performance analysis with adaptive and trainable activation function to compress images. **2022**, ○
- 572 Neural Network Based Watermarking Trained with Quantized Activation Function. **2022**, ○
- 571 Metaheuristic Method for Dimensionality Reduction Tasks. **2022**, ○
- 570 Data-Driven Modeling Methods in Sintering Process: Current Research Status and Perspectives. ○
- 569 Intellectual property protection of DNN models. ○
- 568 Music Generation System for Adversarial Training Based on Deep Learning. **2022**, 10, 2515 ○
- 567 Applications of machine learning in metabolomics: Disease modeling and classification. 13, ○
- 566 Machine learning phase transitions of the three-dimensional Ising universality class. ○
- 565 Deep Generative Modeling of Periodic Variable Stars Using Physical Parameters. **2022**, 164, 263 ○
- 564 Late industrialisation and global value chains under platform capitalism. ○
- 563 Deep learning and radiomics to predict the mitotic index of gastrointestinal stromal tumors based on multiparametric MRI. 12, ○
- 562 Multisensor information fusion method for intelligent fault diagnosis of reciprocating compressor in shale gas development. 1748006X2211365 ○
- 561 An improved anchor-free SAR ship detection algorithm based on brain-inspired attention mechanism. 16, ○
- 560 Artificial intelligence techniques for neuropathological diagnostics and research. ○
- 559 Autoencoder-based Unsupervised Anomaly Detection for Covid-19 Screening on Chest X-Ray Images. **2022**, ○

- 558 Research on Carotid Ultrasonic Image Detection Based on Convolutional Neural Network. **2022**, ○
- 557 Semi-supervised learning dehazing algorithm based on the OSV model. ○
- 556 MR image reconstruction from undersampled data for image-guided radiation therapy using a patient-specific deep manifold image prior. 12, ○
- 555 Method to Detect Slag Flow in Course of Steel Casting Based on Machine Learning Algorithms. **2022**, ○
- 554 High-Resolution Range Profile Target Recognition based on Deep Kernel Extreme Learning Machine. **2022**, ○
- 553 A Review of Security Research on the Internet of Things, Based on Artificial Intelligence and Blockchain. **2022**, 2, 80-82 ○
- 552 Recurrent attention convolutional neural network optimise track foreign body detection. ○
- 551 Phonological features emerge substance-freely from the phonetics and the morphology. **2022**, 67, 611-669 ○
- 550 Entropy and Variability: A Second Opinion by Deep Learning. **2022**, 12, 1740 ○
- 549 Learning orientation-invariant representations enables accurate and robust morphologic profiling of cells and organelles. ○
- 548 A novel convolutional neural network for gesture recognition. **2022**, ○
- 547 Deep learning-driven automatic detection of mucilage event in the Sea of Marmara, Turkey. ○
- 546 Artificial Intelligence and Advanced Materials. 2208683 1
- 545 Unsupervised dimension-contribution-aware embeddings transformation for anomaly detection. **2022**, 110209 ○
- 544 Deep Learning in Diverse Intelligent Sensor Based Systems. **2023**, 23, 62 1
- 543 EmulART: Emulating radiative transfer̄ pilot study on autoencoder-based dimensionality reduction for radiative transfer models. ○
- 542 An Axiology of Weak Areas: The Estimation of an Index of Abandonment for the Definition of a Cognitive Tool to Support the Enhancement of Inland Areas in Sicily. **2022**, 11, 2268 ○
- 541 Scientometric analysis and critical review on the application of deep learning in the construction industry.. ○

- 540 Automated Machine Learning System for Defect Detection on Cylindrical Metal Surfaces. **2022**, 22, 9783 ○
- 539 Structural Damage Detection Based on One-Dimensional Convolutional Neural Network. **2023**, 13, 140 ○
- 538 Forecasting Bitcoin Volatility Using Hybrid GARCH Models with Machine Learning. **2022**, 10, 237 ○
- 537 All-Weather and Superpixel Water Extraction Methods Based on Multisource Remote Sensing Data Fusion. **2022**, 14, 6177 ○
- 536 Spatial-ID: a cell typing method for spatially resolved transcriptomics via transfer learning and spatial embedding. **2022**, 13, ○
- 535 Long-term multi source analysis for asphalt binder PG selection using deep learning high air temperature modelling. 1-18 ○
- 534 Biologically plausible unsupervised learning in neural networks with sparse and asymmetric connectivity. ○
- 533 New technologies for optimal scheduling of electric vehicles in renewable energy-oriented power systems: A review of deep learning, deep reinforcement learning and blockchain technology. ○
- 532 Huber loss based distributed robust learning algorithm for random vector functional-link network. ○
- 531 Clustering of single-cell multi-omics data with a multimodal deep learning method. **2022**, 13, 1 ○
- 530 Magnetic phases of spatially modulated spin-1 chains in Rydberg excitons: Classical and quantum simulations. **2022**, 157, 224111 ○
- 529 A Developmental Approach for Training Deep Belief Networks. ○
- 528 DeepTRNet: Time-resolved reconstruction of flow around a circular cylinder via spatiotemporal deep neural networks. ○
- 527 Coal-fired power plant CCUS project comprehensive benefit evaluation and forecasting model study. **2022**, 135657 ○
- 526 Knowledge Tracing via Attention Enhanced Encoder-Decoder. **2022**, 2022, 1-12 ○
- 525 CLASSIFICATION OF SATELLITE IMAGES WITH DEEP CONVOLUTIONAL NEURAL NETWORKS AND ITS EFFECT ON ARCHITECTURE. ○
- 524 DGS-Fuse: unsupervised image fusion network combining global information. **2022**, 31, ○
- 523 A privacy preserving federated learning scheme using homomorphic encryption and secret sharing. ○

- 522 Researches advanced in application of medical image analysis based on deep learning. **2022,** ○
- 521 New phenotype discovery method by unsupervised deep representation learning empowers genetic association studies of brain imaging. ○
- 520 Limiting adverse birth outcomes in resource-limited settings (LABOR): protocol of a prospective intrapartum cohort study. 6, 115 ○
- 519 Mechanical properties prediction of tire cord steel via multi-stage neural network with time-series data. 1-7 ○
- 518 Subspace clustering via graph auto-encoder network for unknown encrypted traffic recognition. **2022, 5,** ○
- 517 Scaling Up Bayesian Uncertainty Quantification for Inverse Problems Using Deep Neural Networks. **2022, 10, 1684-1713** ○
- 516 Deep learning and session-specific rapid recalibration for dynamic hand gesture recognition from EMG. 10, ○
- 515 SAdaBoundNc: an adaptive subgradient online learning algorithm with logarithmic regret bounds. ○
- 514 Advances in Machine Learning for Sensing and Condition Monitoring. **2022, 12, 12392** 2
- 513 Application of novel hybrid machine learning systems and radiomics features for non-motor outcome prediction in Parkinson's disease. ○
- 512 Intention-guided Deep Semi-supervised Document Clustering Via Metric Learning. **2022,** ○
- 511 Learning the differences: a transfer-learning approach to predict antigen immunogenicity and T-cell receptor specificity. ○
- 510 Lossless Image Steganography Based on Invertible Neural Networks. **2022, 24, 1762** ○
- 509 Research on Tea Trees Germination Density Detection Based on Improved YOLOv5. **2022, 13, 2091** ○
- 508 Anomaly Detection Using Pretrained Model with Neighbor Features and Anomalous Features. **2022**, 88, 903-909 ○
- 507 A physics-guided autoregressive model for saturation sequence prediction. **2022, 211373** ○
- 506 Application of Deep Learning in Histopathology Images of Breast Cancer: A Review. **2022, 13, 2197** ○
- 505 Heart sound classification based on improved mel-frequency spectral coefficients and deep residual learning. 13, ○

- 504 Distribution Preserving-based Deep Semi-NMF for Data Representation. **2022**, ○
- 503 Multistability of Quaternion-Valued Recurrent Neural Networks with Discontinuous Nonmonotonic Piecewise Nonlinear Activation Functions. ○
- 502 Phenomapping approach to interpreting coronary dimensions in febrile children. **2022**, 6, 233-240 ○
- 501 Mathematical modeling of systems and processes. **2022**, ○
- 500 An approach for identifying historic village using deep learning. **2023**, 5, ○
- 499 On the combination of adaptive neuro-fuzzy inference system and deep residual network for improving detection rates on intrusion detection. **2022**, 17, e0278819 ○
- 498 Combined CNN and Pixel Feature Image for Fatty Liver Ultrasound Image Classification. **2022**, 2022, 1-10 ○
- 497 Two deep learning-based bias-correction pathways improve summer precipitation prediction over China. **2022**, 17, 124025 ○
- 496 Some recent trends in embeddings of time series and dynamic networks. 1
- 495 Contrastive Domain Adaptation-Based Sparse SAR Target Classification under Few-Shot Cases. **2023**, 15, 469 1
- 494 Hierarchical SpatioTemporal Graph Convolutional Networks and Transformer Network for Traffic Flow Forecasting. **2023**, 1-13 ○
- 493 Divide and Conquer: A Flexible Deep Learning Strategy for Exploring Metabolic Heterogeneity from Mass Spectrometry Imaging Data. ○
- 492 An Overview of Learning Algorithms and Inference Techniques on Restricted Boltzmann Machines (RBMs). **2019**, ○
- 491 Research on joint extraction method of entity and relation triples based on hierarchical cascade labeling. **2022**, 1-1 ○
- 490 Adversarial and Implicit Modality Imputation with Applications to Depression Early Detection. **2022**, 230-241 ○
- 489 Selected Aspects of Interactive Feature Extraction. **2022**, 121-287 ○
- 488 Efficient feature extraction from highly sparse binary genotype data for cancer prognosis prediction using an auto-encoder. 12, ○
- 487 Prediction of protein-protein interactions based on ensemble residual convolutional neural network. **2023**, 152, 106471 ○

- 486 Adaptive Discriminative Regions Learning Network for Remote Sensing Scene Classification. **2023**, 23, 773 ○
- 485 PETrans: De Novo Drug Design with Protein-Specific Encoding Based on Transfer Learning. **2023**, 24, 1146 ○
- 484 PoolNet deep feature based person re-identification. ○
- 483 KODAMA exploratory analysis in metabolic phenotyping. 9, ○
- 482 An Improved Conv-LSTM Method for Gear Fault Detection. **2023**, 118-129 ○
- 481 Cutting anomaly detection in end-milling by multimodal variational autoencoder. **2023**, ○
- 480 Edge-Guided Hyperspectral Image Compression With Interactive Dual Attention. **2023**, 61, 1-17 ○
- 479 Sticks and STONES may build my bones: Deep learning reconstruction of limb rotations in stick figures. **2023**, 165, 138-145 ○
- 478 Using Fused Contourlet Transform and Neural Features to Spot COVID19 Infections in CT Scan Images. **2023**, 200182 ○
- 477 SIGMA: Spectral Interpretation using Gaussian Mixtures and Autoencoder. ○
- 476 Movie Account Recommendation on Instagram. ○
- 475 Visualization and Deep Learning in Data Science. **2023**, 13-29 ○
- 474 Deep Image Clustering Based on Label Similarity and Maximizing Mutual Information across Views. **2023**, 13, 674 ○
- 473 Neural assemblies uncovered by generative modeling explain whole-brain activity statistics and reflect structural connectivity. 12, 2
- 472 Detecting vulnerable software functions via text and dependency features. ○
- 471 SL-HarDNet: Skin lesion segmentation with HarDNet. 10, ○
- 470 Introducing nonlinear activations into quantum generative models. **2023**, 107, ○
- 469 Land Cover Classification with Gaussian Processes using spatio-spectro-temporal features. **2023**, 1-1 ○

- 468 Parametric model order reduction by machine learning for fluid-structure interaction analysis. 0
- 467 Biologically Inspired Design Concept Generation Using Generative Pre-Trained Transformers. **2023**, 145, 1
- 466 Coarse-graining research of the thermal infrared anomalies before earthquakes in the Sichuan area on Google Earth engine. 11, 0
- 465 A Machine Learning Enhanced Approach for Automated Sunquake Detection in Acoustic Emission Maps. **2023**, 298, 0
- 464 Data Analytics on Medical Images with Deep Learning Approach. **2023**, 153-166 0
- 463 PAEDID: Patch Autoencoder Based Deep Image Decomposition For Pixel-level Defective Region Segmentation. 1-24 0
- 462 SA-PatchCore: Anomaly Detection in Dataset With Co-Occurrence Relationships Using Self-Attention. **2023**, 11, 3232-3240 0
- 461 Performance evaluation of ResNet model for classification of tomato plant disease. **2023**, 12, 0
- 460 Coherence based graph convolution network for motor imagery-induced EEG after spinal cord injury. 16, 0
- 459 Applications of deep learning in understanding gene regulation. **2023**, 100384 0
- 458 Keyframe image processing of semantic 3D point clouds based on deep learning. 16, 0
- 457 Investigating Tropical Cyclone Rapid Intensification with an Advanced Artificial Intelligence System and Gridded Reanalysis Data. **2023**, 14, 195 0
- 456 Machine learning for knowledge acquisition and accelerated inverse-design for non-Hermitian systems. **2023**, 6, 0
- 455 Numerical Study on the Effect of Blade Trailing Edge Filing on Performance and Unsteady Pressure Pulsation in Low Specific Speed Centrifugal Pump. 0
- 454 Novelty Detection of Leukocyte Image via Mean-Shifted Feature and Directly Optimized Subspace. **2023**, 1-1 0
- 453 A classification method of gastric cancer subtype based on residual graph convolution network. 13, 0
- 452 Chasing collective variables using temporal data-driven strategies. 1-21 0
- 451 A Combined Model Based on Recurrent Neural Networks and Graph Convolutional Networks for Financial Time Series Forecasting. **2023**, 11, 224 2

450	Diagnosis for the refrigerant undercharge fault of chiller using deep belief network enhanced extreme learning machine. 2023 , 55, 102977	0
449	An inverse design paradigm of multi-functional elastic metasurface via data-driven machine learning. 2023 , 226, 111560	0
448	A novel machine learning framework for efficient calibration of complex DEM model: A case study of a conglomerate sample. 2023 , 279, 109044	1
447	Distance-preserving manifold denoising for data-driven mechanics. 2023 , 405, 115857	0
446	Early identification of autism spectrum disorder by multi-instrument fusion: A clinically applicable machine learning approach. 2023 , 320, 115050	0
445	RDERL: Reliable deep ensemble reinforcement learning-based recommender system. 2023 , 263, 110289	0
444	Core loss: Mining core samples efficiently for robust machine anomaly detection against data pollution. 2023 , 189, 110046	0
443	Quantum machine learning in medical image analysis: A survey. 2023 , 525, 42-53	0
442	Hurricane-Induced Failure Mechanisms in Low-Rise Residential Buildings and Future Research Directions. 2023 , 24,	0
441	Learning representation via indirect feature decorrelation with bi-vector-based contrastive learning for clustering. 2023 , 625, 141-156	0
440	Contrastive blind denoising autoencoder for real time denoising of industrial IoT sensor data. 2023 , 120, 105838	1
439	A speed normalized autoencoder for rotating machinery fault detection under varying speed conditions. 2023 , 189, 110109	1
438	Towards Skin Cancer Self-Monitoring through an Optimized MobileNet with Coordinate Attention. 2022 ,	0
437	DDoSNet: A Deep Learning Model for detecting Network Attacks in Cloud Computing. 2022 ,	0
436	Aircraft Maneuver Intelligent Recognition: An End-to-end Regularized Autoencoder and SVM Approach. 2022 ,	0
435	An Efficient Heterogeneous SoC with Reconfigurable CNN Accelerator for Edge Processing. 2022 ,	0
434	A Visual Learning based Robotic Grasping System. 2022 ,	0
433	Data Classification Based on Broad Learning System with Hybrid Genes-PSO. 2022 ,	0

- 432 Fine-Tuned Framework With Transfer Learning for Pulmonary Nodule Detection. **2022**, ○
- 431 Hardware Design and Learning-Based Software Architecture of Musculoskeletal Wheeled Robot Musashi-W for Real-World Applications. **2022**, ○
- 430 Abnormal Wedge Bond Detection Using Convolutional Autoencoders in Industrial Vision Systems. **2022**, ○
- 429 Multichannel Matrix Randomized Autoencoder. ○
- 428 A review of radiomics and genomics applications in cancers: the way towards precision medicine. **2022**, 17, 1
- 427 A deep learning-based unsupervised learning method for spatially resolved transcriptomic data analysis. **2022**, ○
- 426 Modern Deep Learning Approaches for Symbol Detection in Complex Engineering Drawings. **2022**, ○
- 425 sciAC: clustering scATAC-seq data based on Student's t-distribution similarity imputation and denoising autoencoder. **2022**, ○
- 424 Deep-Learning-Based Automatic Detection of Photovoltaic Cell Defects in Electroluminescence Images. **2023**, 23, 297 ○
- 423 Unsupervised image-to-image translation via long-short cycle-consistent adversarial networks. ○
- 422 Hybrid Quantum-Classical Autoencoders for End-to-End Radio Communication. **2022**, ○
- 421 Training Autoencoders Using Relative Entropy Constraints. **2023**, 13, 287 ○
- 420 Multilayer discriminative extreme learning machine for classification. ○
- 419 CNN-Enabled Multiple Power-Levels Identification in Cognitive Radio Networks. **2022**, ○
- 418 Calibrating the Classical Hardness of the Quantum Approximate Optimization Algorithm. **2022**, 3, ○
- 417 Utilizing source code syntax patterns to detect bug inducing commits using machine learning models. ○
- 416 A THEORETICAL INVESTIGATION ON TRAINING OF PIPE-LIKE NEURAL NETWORK BENCHMARK ARCHITECTURES AND PERFORMANCE COMPARISONS OF POPULAR TRAINING ALGORITHMS. **2022**, 10, 1251-1271 ○
- 415 Modern Approaches towards Object Detection of Complex Engineering Drawings. **2022**, ○

414	Automatic target recognition of SAR images based on Transformer. 2021,	o
413	An Overview of Multimodal Fusion Learning. 2022, 259-268	o
412	SHCN: Self-supervised General Hypergraph Clustering Network. 2022,	o
411	Comparison of Edge Computing Methods for Environmental Monitoring IoT Sensors Using Neural Networks and Wavelet Transforms. 2022,	o
410	A Multi-Module Machine Learning Approach to Detect Tax Fraud. 2023, 46, 241-253	o
409	Machine learning in autism spectrum disorder diagnosis and treatment: techniques and applications. 2023, 173-193	o
408	Reconstructing in-depth activity for chaotic 3D spatiotemporal excitable media models based on surface data. 2023, 33, 013134	o
407	WoM-based deep BiLSTM: smart disease prediction model using WoM-based deep BiLSTM classifier.	o
406	StencilTorch: An Iterative and User-Guided Framework for Anime Lineart Colorization. 2023, 1-17	o
405	Prediction of Significant Wave Heights with Engineered Features from GNSS Reflectometry. 2023, 15, 822	1
404	Update on the Use of Artificial Intelligence in Hepatobiliary MR Imaging. 2023,	o
403	Overview of Surface Defect Detection Methods Based on Deep Learning. 2023, 123-128	o
402	Applications of convolutional neural networks for spectral analysis. 2023, 145-186	o
401	Potentially underestimated gas flaring activities - a new approach to detect combustion using machine learning and NASA's Black Marble product suite.	o
400	A scaling up approach: a research agenda for medical imaging analysis with applications in deep learning. 1-55	o
399	Deep Learning Techniques in Intelligent Fault Diagnosis and Prognosis for Industrial Systems: A Review. 2023, 23, 1305	o
398	Multimodal Finger Recognition Based on Asymmetric Networks with Fused Similarity. 2023, 1-1	o
397	Emerging memories and their applications in neuromorphic computing. 2023, 305-357	o

396	IWGAN: Anomaly Detection in Airport Based on Improved Wasserstein Generative Adversarial Network. 2023 , 13, 1397	1
395	Anomaly Detection in Rails Using Dimensionality Reduction. 2023 , 63, 170-178	0
394	Optimization Application of Deep Belief Network in Gear Fault Diagnosis. 2023 , 2437, 012077	0
393	Utilization of EV Charging Station in Demand Side Management Using Deep Learning Method. 2023 , 11, 8747-8760	0
392	Deep Metric Learning. 2023 , 531-562	0
391	Machine learning enabled orthogonal camera goniometry for accurate and robust contact angle measurements. 2023 , 13,	5
390	Industrial Application of Data-Driven Process Monitoring with an Automatic Selection Strategy for Modeling Data. 2023 , 11, 402	0
389	Towards Disturbance-Free Visual Mobile Manipulation. 2023 ,	0
388	Connecting Vibrational Spectroscopy to Atomic Structure via Supervised Manifold Learning: Beyond Peak Analysis.	0
387	A New Method for Diagnosing Motor Bearing Faults Based on Gramian Angular Field Image Coding and Improved CNN-ELM. 2023 , 11, 11337-11349	0
386	A Novel Deep Nearest Neighbor Neural Network for Few-Shot Remote Sensing Image Scene Classification. 2023 , 15, 666	0
385	Deep Learning-Based Multiomics Data Integration Methods for Biomedical Application. 2200247	0
384	Improving Semi-Supervised End-To-End Automatic Speech Recognition Using CycleGAN and Inter-Domain Losses. 2023 ,	0
383	Artificial Intelligence-Based Medical Devices Revolution in Cancer Screening: Impact into Clinical Practice. 2023 , 195-215	0
382	Multi-Feature Data Fusion-Based Load Forecasting of Electric Vehicle Charging Stations Using a Deep Learning Model. 2023 , 16, 1309	0
381	Detection and classification of Diabetic Retinopathy Lesions using deep learning. 2023 , 241-264	0
380	Conditional autoencoder pre-training and optimization algorithms for personalized care of hemophiliac patients. 6,	0
379	Multi-view clustering based on view-attention driven.	0

- 378 Stochastic Neighbour Embedding. **2023**, 455-477 ○
- 377 Research on Recommendation System of Online Chinese Learning Resources Based on Multiple Collaborative Filtering Algorithms (RSOCLR). 1-11 ○
- 376 Application of Ultrasonic Testing Method in Particle Detection of GIS Handover Test. **2023**, 2440, 012010 ○
- 375 Hyper-Enhanced Feature Learning System for Emotion Recognition. **2023**, 1-27 ○
- 374 A Case Analysis of Particle Defects Found in 220kV GIS by Ultrasonic Partial Discharge and SF6 Gas Decomposition Products Joint Detection. **2023**, 2440, 012012 ○
- 373 Framework for Generation and Removal of Multiple Types of Adverse Weather from Driving Scene Images. **2023**, 23, 1548 ○
- 372 Probabilistic partition of unity networks for high-dimensional regression problems. ○
- 371 Deep Adaptive Graph Clustering via von Mises-Fisher Distributions. ○
- 370 Evaluation of Computational Methods for Single Cell Multi-Omics Integration. **2023**, 218, 2744-2754 ○
- 369 Addressing Feature Suppression in Unsupervised Visual Representations. **2023**, ○
- 368 Diagnosis of malaria disease by integrating chi-square feature selection algorithm with convolutional neural networks and autoencoder network. 014233122211473 1
- 367 Tensor networks for unsupervised machine learning. **2023**, 107, ○
- 366 Artificial intelligence in cardiovascular imaging. **2023**, 51-72 ○
- 365 The Application Mode of Multi-Dimensional Time Series Data Based on a Multi-Stage Neural Network. **2023**, 12, 578 ○
- 364 Sea Ice Detection from SAR Images Based on Deep Fully Convolutional Networks. **2023**, 253-276 ○
- 363 A Capability Fitting and Data Reconstruction Model Based on Particle Swarm Optimization-Bidirectional Deep Neural Network for Search and Rescue System of Systems. **2023**, 11, 10366-10383 ○
- 362 Multi-Swarm Genetic Gray Wolf Optimizer with Embedded Autoencoders for High-Dimensional Expensive Problems. ○
- 361 ProtInteract: A deep learning framework for predicting protein-protein interactions. **2023**, 21, 1324-1348 ○

- 360 Federated Learning in Health care Using Structured Medical Data. **2023**, 30, 4-16 ○
- 359 A shape-attention Pivot-Net for identifying central pivot irrigation systems from satellite images using a cloud computing platform: an application in the contiguous US. **2023**, 60, ○
- 358 Modularity in Nervous Systems—Key to Efficient Adaptivity for Deep Reinforcement Learning. ○
- 357 Modeling and Control of Robotic Manipulators Based on Artificial Neural Networks: A Review. ○
- 356 Robust malware clustering of windows portable executables using 'ensemble latent representation' and 'distribution modeling'. ○
- 355 Autoencoders in generative modeling, feature extraction, regression, and classification. **2023**, 119-136 ○
- 354 Detection and Analysis of Mesoscale Eddies Based on Deep Learning. **2023**, 209-225 ○
- 353 Construction of an Integrated Drought Monitoring Model Based on Deep Learning Algorithms. **2023**, 15, 667 ○
- 352 Deep Learning for Magnetic Flux Leakage Detection and Evaluation of Oil & Gas Pipelines: A Review. **2023**, 16, 1372 ○
- 351 Wavelength-aware 2D Convolutions for Hyperspectral Imaging. **2023**, ○
- 350 Supervised Attention-Based Bidirectional Long Short-Term Memory Network for Nonlinear Dynamic Soft Sensor Application. **2023**, 8, 4196-4208 ○
- 349 Urban Tree Canopy Mapping Based on Double-Branch Convolutional Neural Network and Multi-Temporal High Spatial Resolution Satellite Imagery. **2023**, 15, 765 ○
- 348 Image Segmentation-based Unsupervised Multiple Objects Discovery. **2023**, ○
- 347 Self-Supervised Global-Local Contrastive Learning for Fine-Grained Change Detection in VHR Images. **2023**, 61, 1-13 ○
- 346 Deep Learning Techniques for Photovoltaic Solar Tracking Systems: A Systematic Literature Review. ○
- 345 Deep learning in economics: a systematic and critical review. ○
- 344 Structural damage detection based on transfer learning strategy using digital twins of bridges. **2023**, 191, 110160 ○
- 343 Context-aware style learning and content recovery networks for neural style transfer. **2023**, 60, 103265 ○

- 342 Micro-expression Recognition Based on Deep Mutual Learning Network. **2022,** ○
- 341 Advance deep convolution neural network for multiple fault diagnosis of induction motor. **2022,** ○
- 340 An Efficient Model For Student Behavior Recognition in Classroom. **2022,** ○
- 339 Interpretable Sentencing Element-based Prison Term Prediction. **2022,** ○
- 338 Radar HRRP Target Recognition Based on Composite Deep Networks. **2022,** ○
- 337 Autoencoder Ensemble Method for Botnets Detection on IOT Devices. **2022,** ○
- 336 Approximate and discrete Euclidean vector bundles. **2023, 11,** ○
- 335 A Survey of Comparative Learning Methods. **2023,** ○
- 334 Addressing Different Goal Selection Strategies In Hindsight Experience Replay With Actor-Critic Methods For Robotic Hand Manipulation. **2022,** ○
- 333 Analysis of Affective Tendency of Catering Service Evaluation Comparison Based on Different Classification Models. **2023, 12, 940-952** ○
- 332 Intrinsic Imaging Model Enhanced Contrastive Face Representation Learning. **2023,** ○
- 331 Unsupervised Anomaly Segmentation for Brain Lesions Using Dual Semantic-Manifold Reconstruction. **2023, 133-144** ○
- 330 A Time Series Forecasting Method Using DBN and Adam Optimization. **2023, 95-106** ○
- 329 Value-Added Tax Fraud Detection and Anomaly Feature Selection Using Sectorial Autoencoders. **2023, 323-331** ○
- 328 Visual Foresight with a Local Dynamics Model. **2023, 67-82** ○
- 327 A Genetic Programming Encoder for Increasing Autoencoder Interpretability. **2023, 19-35** ○
- 326 SpectralMAP: Approximating Data Manifold With Spectral Decomposition. **2023, 11, 31530-31540** ○
- 325 Artificial neural network encoding of molecular wavefunctions for quantum computing. ○

- 324 A Fast Method of Legal Decision Recommendation System. **2023**, 260-268 ○
- 323 Privacy Preserved Federated Learning for Skin Cancer Diagnosis. **2023**, ○
- 322 Brain-Inspired Remote Sensing Interpretation: A Comprehensive Survey. **2023**, 16, 2992-3033 ○
- 321 Polarization Guided HDR Reconstruction via Pixel-Wise Depolarization. **2023**, 32, 1774-1787 ○
- 320 p-adic statistical field theory and deep belief networks. **2023**, 612, 128492 ○
- 319 Unbalance position of aeroengine flexible rotor analysis and identification based on dynamic model and deep learning. 095440622211493 ○
- 318 A Parameter-Optimized CNN Using WOA and Its Application in Fault Diagnosis of Bearing. **2023**, ○
- 317 Neural network analysis of energy efficiency of the regional economy as a factor of Russia's sustainable development under conditions of big challenges. **2023**, 22, 206-234 ○
- 316 Fusion of ocean data from multiple sources using deep learning: Utilizing sea temperature as an example. 10, ○
- 315 Deep Reinforcement Learning Algorithm Based on Fusion Optimization for Fuel Cell Gas Supply System Control. **2023**, 14, 50 ○
- 314 Exploring City Image Perception in Social Media Big Data through Deep Learning: A Case Study of Zhongshan City. **2023**, 15, 3311 ○
- 313 Output Prediction of Helical Microfiber Temperature Sensors in Cycling Measurement by Deep Learning. **2023**, 13, ○
- 312 MindReader: Unsupervised Classification of Electroencephalographic Data. **2023**, 23, 2971 ○
- 311 Deep Learning for Operating Performance Assessment of Industrial Processes with Layer Attention-Based Stacked Performance-Relevant Denoising Auto-Encoders. ○
- 310 Advancements and Challenges in Machine Learning: A Comprehensive Review of Models, Libraries, Applications, and Algorithms. **2023**, 12, 1789 ○
- 309 Internal pump leakage detection of the hydraulic systems with highly incomplete flow data. **2023**, 56, 101974 ○
- 308 Combined space-time reduced-order model with three-dimensional deep convolution for extrapolating fluid dynamics. **2023**, 35, 043606 ○
- 307 Evolution of corrosion prediction models for oil and gas pipelines: From empirical-driven to data-driven. **2023**, 146, 107097 1

306	Explanatory predictive model for COVID-19 severity risk employing machine learning, shapley addition, and LIME. 2023 , 13,	0
305	An Efficient Compression Method for Lightning Electromagnetic Pulse Signal Based on Convolutional Neural Network and Autoencoder. 2023 , 23, 3908	0
304	A latent representation dual manifold regularization broad learning system with incremental learning capability for fault diagnosis. 2023 , 34, 075005	0
303	A Comprehensive Review on the Advancement of High-Dimensional Neural Networks in Quaternionic Domain with Relevant Applications.	0
302	Machine learning in coastal bridge hydrodynamics: A state-of-the-art review. 2023 , 134, 103511	0
301	Physics-informed deep learning approach to quantification of human brain metabolites from magnetic resonance spectroscopy data. 2023 , 158, 106837	0
300	A semisupervised autoencoder-based method for anomaly detection in cutting tools. 2023 , 93, 315-327	0
299	A comprehensive survey on design and application of autoencoder in deep learning. 2023 , 138, 110176	0
298	The coming of age of interpretable and explainable machine learning models. 2023 , 535, 25-39	1
297	Causal effect of metro operation on regional resident mobility considering zone-based trip time reliability. 2023 , 135, 105041	0
296	Clustering ensemble-based novelty score for outlier detection. 2023 , 121, 106164	0
295	Synthetic data generation: State of the art in health care domain. 2023 , 48, 100546	0
294	An effective fault diagnosis approach for bearing using stacked de-noising auto-encoder with structure adaptive adjustment. 2023 , 214, 112774	0
293	Tool wear classification based on convolutional neural network and time series images during high precision turning of copper. 2023 , 522, 204692	0
292	Correlation of residual stress, hardness and surface roughness with crack initiation and fatigue strength of surface treated additive manufactured AlSi10Mg: Experimental and machine learning approaches. 2023 , 24, 3265-3283	0
291	RIME: A physics-based optimization. 2023 , 532, 183-214	1
290	A method to estimate densities of <i>Cryptolestes pusillus</i> (Schonherr) adults captured in electronic probe traps in paddy based on deep neural networks. 2023 , 209, 107819	0
289	Deep learning-based computed tomography applied to the diagnosis of rib fractures. 2023 , 16, 100558	0

- 288 LLP-AAE: Learning from label proportions with adversarial autoencoder. **2023**, 537, 282-295 ○
- 287 A visual vibration characterization method for intelligent fault diagnosis of rotating machinery. **2023**, 192, 110229 ○
- 286 Quantification of interfacial interaction related with adhesive membrane fouling by genetic algorithm back propagation (GABP) neural network. **2023**, 640, 110-120 ○
- 285 Ensemble models for circuit topology estimation, fault detection and classification in distribution systems. **2023**, 34, 101017 ○
- 284 Fatigue driving detection method based on Time-Space-Frequency features of multimodal signals. **2023**, 84, 104744 ○
- 283 Stability and hopf bifurcation of fractional complex-valued BAM neural networks with multiple time delays. **2023**, 450, 127986 ○
- 282 Infomax-based deep autoencoder network for recognition of multi-element geochemical anomalies linked to mineralization. **2023**, 175, 105341 ○
- 281 A convolutional auto-encoder regression for parametric modeling of mixed convection in concentric annulus. **2023**, 190, 108293 ○
- 280 Exemplar-free class incremental learning via discriminative and comparable parallel one-class classifiers. **2023**, 140, 109561 ○
- 279 Feedback on a shared big dataset for intelligent TBM Part I: Feature extraction and machine learning methods. **2023**, 11, 1-25 ○
- 278 Automatic detection of schizophrenia based on spatial-temporal feature mapping and LeViT with EEG signals. **2023**, 224, 119969 ○
- 277 Prediction of tree crown width in natural mixed forests using deep learning algorithm. **2023**, 100109 ○
- 276 Novel architecture for gated recurrent unit autoencoder trained on time series from electronic health records enables detection of ICU patient subgroups. **2023**, 13, ○
- 275 Seismic damage identification of high arch dams based on an unsupervised deep learning approach. **2023**, 168, 107834 ○
- 274 Resolving Protein Conformational Plasticity and Substrate Binding via Machine Learning. ○
- 273 Deep autoencoder model for direct monitoring of bridges subjected to a moving vehicle load under varying temperature conditions. **2023**, 52, 752-767 ○
- 272 Artificial intelligence-assisted selection and efficacy prediction of antineoplastic strategies for precision cancer therapy. **2023**, 90, 57-72 ○
- 271 Feature extraction and prediction of fine particulate matter (PM2.5) chemical constituents using four machine learning models. **2023**, 221, 119696 ○

270	Generalized Pose Decoupled Network for Unsupervised 3D Skeleton Sequence-Based Action Representation Learning. 2022 , 2022, 0002	0
269	THE PRESSURE LEVELS RESTORATION AT THE PUMP SUCTION ON OIL PRODUCING WELLS BY THE USE OF MACHINE LEARNING METHODS. 2022 , 20, 165	0
268	A Review of Fault Diagnosis, Status Prediction, and Evaluation Technology for Wind Turbines. 2023 , 16, 1125	1
267	Structural Health Monitoring of Underground Metro Tunnel by Identifying Damage Using ANN Deep Learning Auto-Encoder. 2023 , 13, 1332	0
266	A novel prediction based portfolio optimization model using deep learning. 2023 , 177, 109023	0
265	A Meta-Analytical Review of Deep Learning Prediction Models for Big Data. 2022 , 356-381	0
264	EGNN: Graph structure learning based on evolutionary computation helps more in graph neural networks. 2023 , 135, 110040	0
263	A Health state-related ensemble deep learning method for aircraft engine remaining useful life prediction. 2023 , 135, 110041	0
262	Retaining Semantics in Image to Music Conversion. 2022 ,	0
261	Volitional control of upper-limb exoskeleton empowered by EMG sensors and machine learning computing. 2023 , 17, 100277	0
260	Agrupamiento de Señales EEG con Rasgos Aprendidos Usando Autoencoder Profundo. 2023 , 28, 180-192	0
259	Functional approach for Two Way Dimension Reduction in Time Series. 2022 ,	0
258	MBAG: A Scalable Mini-Block Adaptive Gradient Method for Deep Neural Networks. 2022 ,	0
257	MulBot: Unsupervised Bot Detection Based on Multivariate Time Series. 2022 ,	0
256	QMIX Multiple Intelligences Reinforcement Learning Damping Control for Cylindrical Shell. 2022 ,	0
255	Optimizing machine learning hyperparameters in two-photon FLIM image analysis. 2023 ,	0
254	An unsupervised transfer learning model based on convolutional auto encoder for non-alcoholic steatohepatitis activity scoring and fibrosis staging of liver histopathological images.	0
253	STEDNet: Swin transformer-based encoder-decoder network for noise reduction in low-dose CT.	0

- 252 Evolution of linkages for prototyping of linkage based robots. **2022**, 0
- 251 Periodic Extrapolative Generalisation in Neural Networks. **2022**, 0
- 250 Explainable Model-specific Algorithm Selection for Multi-Label Classification. **2022**, 1
- 249 DAGAD: Data Augmentation for Graph Anomaly Detection. **2022**, 0
- 248 On Mean-Optimal Robust Linear Discriminant Analysis. **2022**, 0
- 247 Bayesian inference of petrophysical properties with generative spectral induced polarization models. **2023**, 88, E79-E90 0
- 246 BiT-MAC: Mortality prediction by bidirectional time and multi-feature attention coupled network on multivariate irregular time series. **2023**, 155, 106586 0
- 245 Nonlinear industrial process fault diagnosis with latent label consistency and sparse Gaussian feature learning. **2022**, 29, 3956-3973 0
- 244 Unsupervised Deep Subgraph Anomaly Detection. **2022**, 0
- 243 Improving Self-supervised Dimensionality Reduction: Exploring Hyperparameters and Pseudo-Labeling Strategies. **2023**, 135-161 0
- 242 A hierarchical autoencoder and temporal convolutional neural network reduced-order model for the turbulent wake of a three-dimensional bluff body. **2023**, 35, 025128 0
- 241 Intelligent Fault Diagnosis Using Deep Learning for a Microgrid with High Penetration of Renewable Energy Sources. **2023**, 51, 332-350 0
- 240 Restricted Boltzmann Machine and Deep Belief Network. **2023**, 501-529 0
- 239 Forecasting shipping index using CEEMD-PSO-BiLSTM model. **2023**, 18, e0280504 0
- 238 Challenges in machine learning application development. **2022**, 0
- 237 scAEGAN: Unification of single-cell genomics data by adversarial learning of latent space correspondences. **2023**, 18, e0281315 0
- 236 SSELM-neg: spherical search-based extreme learning machine for drug-target interaction prediction. **2023**, 24, 0
- 235 Mechanical properties of cemented tailings and waste-rock backfill (CTWB) materials: Laboratory tests and deep learning modeling. **2023**, 369, 130610 0

- 234 Intelligent generation method for innovative structures of the main truss in a steel bridge. **2023**, 27, 5587-5601 ○
- 233 Human Activity Recognition Based on a Modified Capsule Network. **2023**, 2023, 1-17 ○
- 232 Study on Training Data of DNN (Deep Neural Network) for Visual Inspection of Large Die-Cast Parts with Three-Dimensional and Complex Shapes. **2023**, 89, 174-181 ○
- 231 Reconstruction Methods in Oceanographic Satellite Data Observation A Survey. **2023**, 11, 340 ○
- 230 Deblurring Low-Light Images with Events. **2023**, 131, 1284-1298 ○
- 229 Intensive Review of Drones Detection and Tracking: Linear Kalman Filter Versus Nonlinear Regression, an Analysis Case. ○
- 228 Deep Learning Approach for Predicting the Therapeutic Usages of Unani Formulas towards Finding Essential Compounds. **2023**, 13, 439 ○
- 227 Delving into Masked Autoencoders for Multi-Label Thorax Disease Classification. **2023**, ○
- 226 Remote Sensing Image Scene Classification: Advances and Open Challenges. **2023**, 3, 137-155 ○
- 225 CommunityGCN: community detection using node classification with graph convolution network. **2023**, ○
- 224 Enhanced Deep Autoencoder based Recommender System. **2022**, ○
- 223 Performance evaluation of dimensionality reduction techniques on hyperspectral data for mineral exploration. **2023**, 16, 25-36 ○
- 222 Multi-condition optimisation design of a hydrofoil based on deep belief network. **2023**, 272, 113846 ○
- 221 Compressed chaotic signal reconstruction based on deep learning. **2023**, 168, 113168 ○
- 220 Rapid assessment of out-of-plane nonlinear shear stress-strain response for thick-section composites using artificial neural networks and DIC. **2023**, 310, 116770 ○
- 219 References. **2024**, 407-416 ○
- 218 Deep learning based unpaired image-to-image translation applications for medical physics: a systematic review. **2023**, 68, 05TR01 ○
- 217 On Training and Verifying Robust Autoencoders. **2022**, ○

- 216 Fundamentals of neural networks. **2024**, 17-51 ○
- 215 Introduction. **2024**, 1-16 ○
- 214 Development of a surrogate model to improve the efficiency of groundwater level fluctuation pattern-based hydrologic properties evaluation. **2023**, 619, 129249 ○
- 213 Performance investigation of several convolutional neural network models in healthcare systems. **2023**, 97-112 ○
- 212 Unsupervised learning-based framework for indirect structural health monitoring using adversarial autoencoder. **2023**, 550, 117598 ○
- 211 143. The magic of predicting shapes from DNA. **2022**, ○
- 210 Application of a Novel Deep Fuzzy Dual Support Vector Regression Machine in Stock Price Prediction. **2022**, ○
- 209 Eigen value based loss function for training attractors in iterated autoencoders. **2023**, 161, 575-588 ○
- 208 Detection of Microaneurysms Using Gabor Walsh-Hadamard Transform and Deep Autoencoder. **2022**, ○
- 207 Social Relationship Link Inference Based on Graph Convolutional Networks. **2023**, 3, 47-55 ○
- 206 An Information-Theoretic Perspective on Intrinsic Motivation in Reinforcement Learning: A Survey. **2023**, 25, 327 ○
- 205 Deep learning-based common skin disease image classification. **2023**, 1-17 ○
- 204 Free form deformation and symmetry constraint-based multi-modal brain image registration using generative adversarial nets. ○
- 203 Anomaly Candidate Extraction and Detection for automatic quality inspection of metal casting products using high-resolution images. **2023**, 67, 229-241 ○
- 202 EYOLOv3: An Efficient Real-Time Detection Model for Floating Object on River. **2023**, 13, 2303 ○
- 201 Long-Lived Particles Anomaly Detection with Parametrized Quantum Circuits. **2023**, 6, 297-311 ○
- 200 Novel Hybrid Calibration Transfer Method Based on Nonlinear Dimensionality Reduction for Robust Standardization in Near-Infrared Spectroscopy. 1-18 ○
- 199 Classification of Power Quality Disturbances Using Semi-supervised Deep Belief Networks. ○

- 198 EAS-GCN: Enhanced Attribute-Aware and Structure-Constrained Graph Convolutional Network. **2023**, 357-371 ○
- 197 Cross-Domain Open Set Fault Diagnosis Based on Weighted Domain Adaptation with Double Classifiers. **2023**, 23, 2137 ○
- 196 Driver fatigue detection based on comprehensive facial features and gated recurrent unit. **2023**, 20, ○
- 195 Fault Diagnosis Techniques for Nuclear Power Plants: A Review from the Artificial Intelligence Perspective. **2023**, 16, 1850 ○
- 194 Sparse Gaussian Feature Learning for Nonlinear Industrial Fault Diagnosis. **2022**, ○
- 193 Modified Conditional Restricted Boltzmann Machines for Query Recommendation in Digital Archives. **2023**, 13, 2435 ○
- 192 Human-Vehicle Cooperative Visual Perception for Autonomous Driving Under Complex Traffic Environments. **2023**, 646-662 ○
- 191 A Fault Diagnosis Method of Aircraft Hydraulic System Based on SSA-DBN. **2022**, ○
- 190 Study on the Relationship between Urban Street-Greenery Rate and Land Surface Temperature Considering Local Climate Zone. **2023**, 20, 3294 ○
- 189 In-Hand Pose Estimation Using Hand-Mounted RGB Cameras and Visuotactile Sensors. **2023**, 11, 17218-17232 ○
- 188 Deep learning and metaheuristics application in internet of things: A literature review. **2023**, 98, 104792 ○
- 187 AESR3D: 3D overcomplete autoencoder for trabecular computed tomography super resolution. ○
- 186 SW-VAE: Weakly Supervised Learn Disentangled Representation via Latent Factor Swapping. **2023**, 73-87 ○
- 185 Unsupervised anomaly detection using graph neural networks integrated with physical-statistical feature fusion and local-global learning. **2023**, 206, 309-323 ○
- 184 Human Action Recognition: A Taxonomy-Based Survey, Updates, and Opportunities. **2023**, 23, 2182 ○
- 183 Feature Recognition of Regional Architecture Forms Based on Machine Learning: A Case Study of Architecture Heritage in Hubei Province, China. **2023**, 15, 3504 1
- 182 Assessments of Variational Autoencoder in Protein Conformation Exploration. 1-13 ○
- 181 Reconstruction of the meso-scale concrete model using a deep convolutional generative adversarial network (DCGAN). **2023**, 370, 130704 ○

- 180 Dual-frequency spectral radar retrieval of snowfall microphysics: a physics-driven deep-learning approach. **2023**, 16, 911-940 ○
- 179 Machine Learning Approach for Prediction of Lateral Confinement Coefficient of CFRP-Wrapped RC Columns. **2023**, 15, 545 1
- 178 Image-Driven Intelligent Prediction of Buckling Behavior for Geometrically Imperfect Cylindrical Shells. **2023**, 61, 2266-2280 ○
- 177 Big Data and Deep Learning with Case Study: An Empirical Stock Market Analysis. **2023**, 297-308 ○
- 176 Multilayer extreme learning machine-based unsupervised deep feature representation for heartbeat classification. ○
- 175 Mining User-aware Multi-relations for Fake News Detection in Large Scale Online Social Networks. **2023**, ○
- 174 Comparison of Machine Learning Methods for Cryptocurrency Price Prediction. **2022**, ○
- 173 Non-destructive evaluation and fast conductivity calculation of various nanowire-based thin films with artificial neural network aided THz time-domain spectroscopy. **2023**, 31, 10657 ○
- 172 Unsupervised Deep Embedded Clustering for High-Dimensional Visual Features of Fashion Images. **2023**, 13, 2828 ○
- 171 Dimensionality reduction methods for extracting functional networks from large-scale CRISPR screens. ○
- 170 Building extraction from high resolution remote sensing images based on improved U2-Net. **2023**, ○
- 169 Semantic Segmentation of Remote Sensing Imagery Based on Multiscale Deformable CNN and DenseCRF. **2023**, 15, 1229 ○
- 168 Dynamic Data Augmentation Based on Imitating Real Scene for Lane Line Detection. **2023**, 15, 1212 ○
- 167 Statistical Embedding: Beyond Principal Components. **2023**, -1, ○
- 166 Comparative Analysis of Software Defect Prediction Using Dimensionality Reduction. **2023**, 171-183 ○
- 165 Latest Trends in Deep Learning Techniques for Image Steganography. **2023**, 15, 1-14 ○
- 164 Comparison of Text Classification Methods Using Deep Learning Neural Networks. **2023**, 438-450 ○
- 163 Automatic pixel-level crack detection with multi-scale feature fusion for slab tracks. ○

162	Multibody dynamics and control using machine learning.	0
161	Investigation of Frequency-Domain Dimension Reduction for A2M-Based Bridge Damage Detection Using Accelerations of Moving Vehicles. 2023 , 16, 1872	1
160	Imaginary components of out-of-time-order correlator and information scrambling for navigating the learning landscape of a quantum machine learning model. 2023 , 5,	0
159	Discriminative spatial-temporal feature learning for modeling network intrusion detection systems. 2023 , 1-30	0
158	Potential Assessment and Interaction Framework of Thermostatically Controlled Air-Conditioning Load Cluster Participating in Photovoltaic Consumption. 2022 ,	0
157	Data-Driven Generalized Minimum Variance Control with Autoencoder based Dimensionality Reduction of Input Signals. 2023 , 143, 305-311	0
156	Leveraging user itinerary to improve personalized deep matching at Fliggy.	0
155	Lithium Battery Life Prediction Based on DBN and LSTM. 2023 , 2433, 012020	0
154	Characterization of chromatin accessibility patterns in different mouse cell types using machine learning methods at single-cell resolution. 14,	0
153	Deep Learning: The Concepts. 2023 , 69-101	0
152	Deep learning for exploring ultra-thin ferroelectrics with highly improved sensitivity of piezoresponse force microscopy. 2023 , 9,	0
151	Prediction of drug amount in Parkinson's disease using hybrid machine learning systems and radiomics features.	0
150	A bibliometric analysis and review on reinforcement learning for transportation applications. 2023 , 11,	0
149	Abnormal structural and functional network topological properties associated with left prefrontal, parietal, and occipital cortices significantly predict childhood TBI-related attention deficits: A semi-supervised deep learning study. 17,	0
148	Foundations of machine learning for low-temperature plasmas: methods and case studies. 2023 , 32, 024003	0
147	Artificial intelligence and machine learning in pain research: a data scientometric analysis. 2022 , 7, e1044	1
146	Structural Design for Roll-Formed Aluminium Alloy Perforated Channels Subjected to Interior-Two-Flange Web Crippling: Experimental Tests, Numerical Simulation, and Neural Network.	0
145	Short- and Long-Term Memory Based on a Floating-Gate IGZO Synaptic Transistor. 2023 , 11, 20196-20201	0

- 144 A Novel Jointly Optimized Cooperative DAE-DNN Approach Based on a New Multi-Target Step-Wise Learning for Speech Enhancement. **2023**, 11, 21669-21685 ○
- 143 Using neural networks to forecast the number of road accidents in Poland taking into account weather conditions. **2023**, 17, 100981 ○
- 142 Comparing directed networks via denoising graphlet distributions. **2023**, 11, ○
- 141 Stabilizing and Simplifying Sharpened Dimensionality Reduction Using Deep Learning. **2023**, 4, ○
- 140 CT-Based Automatic Spine Segmentation Using Patch-Based Deep Learning. **2023**, 2023, 1-14 1
- 139 Data-driven methods for low-dimensional representation and state identification for the spatiotemporal structure of cavitation flow fields. **2023**, 35, 033318 ○
- 138 Modern Synergetic Neural Network for Synthetic Aperture Radar Target Recognition. **2023**, 23, 2820 ○
- 137 Tor Anonymous Traffic Identification Based on Parallelizing Dilated Convolutional Network. **2023**, 13, 3243 ○
- 136 Papaver somniferum and Papaver rhoeas Classification Based on Visible Capsule Images Using a Modified MobileNetV3-Small Network with Transfer Learning. **2023**, 25, 447 ○
- 135 Deep Intelligence: What AI Should Learn from Nature's Imagination. ○
- 134 Reduced order modeling of non-linear monopile dynamics via an AE-LSTM scheme. 11, ○
- 133 Auto-encoder neural network incorporating x-ray fluorescence fundamental parameters with machine learning. **2023**, 52, 142-150 ○
- 132 A Boundary Detection Enhanced Model for People Name Recognition in Ancient Chinese Literature. **2022**, ○
- 131 MR.DRP: A Parameter Adaptive Machine Learning Framework for Drug Response Prediction. **2022**, ○
- 130 Toward Combining Multi Seismic Attributes, A Novel Machine Learning Approach. **2023**, ○
- 129 Editorial: Novel methods in embodied and enactive AI and cognition. 17, ○
- 128 Unsupervised Feature Representation Based on Deep Boltzmann Machine for Seizure Detection. **2023**, 31, 1624-1634 ○
- 127 EFFICIENCY IMPROVEMENT OF PINNS INVERSE ANALYSIS BY EXTRACTING SPATIAL FEATURES OF DATA. **2023**, 79, n/a ○

- 126 Acoustic detection and localization of gas pipeline leak based on residual connection and one-dimensional separable convolutional neural network. 014233122311562 ○
- 125 Quantum deep learning by sampling neural nets with a quantum annealer. **2023**, 13, ○
- 124 EEG channel selection-based binary particle swarm optimization with recurrent convolutional autoencoder for emotion recognition. **2023**, 84, 104783 ○
- 123 A Brief Tour of Deep Learning from a Statistical Perspective. **2023**, 10, 219-246 ○
- 122 Agricultural plant diseases identification: From traditional approach to deep learning. **2023**, ○
- 121 A study of autoencoders as a feature extraction technique for spike sorting. **2023**, 18, e0282810 ○
- 120 ThermalProGAN: A sequence-based thermally stable protein generator trained using unpaired data. **2023**, 21, ○
- 119 Do Machines Really Understand Meaning? (Again). **2023**, 10, 181-206 ○
- 118 Internet of Brain, Thought, Thinking, and Creation. **2022**, 31, 1025-1042 ○
- 117 Biological Strategies ParetoGP Enables Analysis of Wide and Ill-Conditioned Data from Nonlinear Systems. **2023**, 91-116 ○
- 116 Machine learning exploration of the mobility and environmental assessment of toxic elements in mining-associated solid wastes. **2023**, 401, 136771 ○
- 115 2D-Material-Based Volatile and Nonvolatile Memristive Devices for Neuromorphic Computing. **2023**, 5, 1109-1135 ○
- 114 A Novel Robust Broad Nonlinear Representation CVA Method for Monitoring Blast Furnace Iron-making Process. **2022**, ○
- 113 A quality-checked and physics-constrained deep learning method to estimate material basis images from single-kV contrast-enhanced chest CT scans. ○
- 112 A Tensor Solution for Health Indicator Construction of Metro Wheelset Degradation with Irregular Noise. **2022**, ○
- 111 ConvNeXt-CNN Based Intelligent Fault Diagnosis Method for Rotating Equipment. **2022**, ○
- 110 Image-to-Image Training for Spatially Seamless Air Temperature Estimation With Satellite Images and Station Data. **2023**, 16, 3353-3363 ○
- 109 DcPCA: A Deep Learning Model for Contrastive Analytics of Nonlinear Data. **2022**, ○

- 108 A Novel LSTM-1DCNN-based Deep Network for Fault Diagnosis in Chemical Process. **2022**, ○
- 107 High-dimensional Video Caching Selection Method Based on Deep Reinforcement Learning. **2022**, ○
- 106 Reverberation suppression for detecting underwater moving target based on robust autoencoder. **2023**, 206, 109301 ○
- 105 Research and application of matching network. **2022**, ○
- 104 Learning a restricted Boltzmann machine using biased Monte Carlo sampling. **2023**, 14, ○
- 103 Analysis of Airglow Image Classification Based on Feature Map Visualization. **2023**, 13, 3671 ○
- 102 Artificial Intelligence Accelerators. **2023**, 1-52 ○
- 101 Speech Emotion Recognition Based on Multi-feature Fusion and DCNN. **2022**, ○
- 100 The New Archivist. **2022**, 88-112 ○
- 99 A cross-modal deep metric learning model for disease diagnosis based on chest x-ray images. ○
- 98 Variation of surface water extent in the great Sebkhha of Oran (NW of Algeria), using Landsat data 1987-2019: Interaction of natural factors and anthropogenic impacts. **2023**, 30, 100953 ○
- 97 Research on the application of voice interaction technology based on WebRTC in the Smart Water Supply System. **2022**, ○
- 96 Variations in chlorophyll-a concentration in response to hydrodynamics in a flow-through lake: Remote sensing and modeling studies. **2023**, 148, 110128 ○
- 95 NE-WNA: A Novel Network Embedding Framework Without Neighborhood Aggregation. **2023**, 453-468 ○
- 94 Image restoration of FACED microscopy by generative adversarial network. **2023**, ○
- 93 Research on Front-end Electrical Component Recognition Algorithm based on Improved Yolov5s. **2022**, ○
- 92 Intelligent Portfolio Optimization Based on Machine Learning. **2023**, 13, 349-357 ○
- 91 A universal framework for single-cell multi-omics data integration with graph convolutional networks. ○

- 90 3D Mesh Generation from a Defective Point Cloud using Style Transformation. **2022**, ○
- 89 Emoji Creation from Facial Expression Detection Using CNN. **2023**, 303-312 ○
- 88 Fast conformational clustering of extensive molecular dynamics simulation data. **2023**, 158, 144109 ○
- 87 Twin Broad Learning System for Fault Diagnosis of Rotating Machinery. **2023**, 72, 1-12 ○
- 86 Study and Innovative Approach of Deep Learning Algorithms and Architecture. **2023**, 28-45 ○
- 85 Application of Artificial Intelligence in Assessing the Self-Management Practices of Patients with Type 2 Diabetes. **2023**, 11, 903 ○
- 84 A point selection method in map generalization using graph convolutional network model. 1-21 ○
- 83 Machine learning-based signal quality assessment for cardiac volume monitoring in electrical impedance tomography. **2023**, 4, 015034 ○
- 82 Noise Prediction and Reduction of Single Electron Spin by Deep-Learning-Enhanced Feedforward Control. **2023**, 23, 2460-2466 ○
- 81 Symplectic Model Reduction of Hamiltonian Systems on Nonlinear Manifolds and Approximation with Weakly Symplectic Autoencoder. **2023**, 45, A289-A311 ○
- 80 Dense reinforcement learning for safety validation of autonomous vehicles. **2023**, 615, 620-627 ○
- 79 Current applications and future impact of machine learning in emerging contaminants: A review. 1-19 ○
- 78 Fast-Image2Point: Towards Real-Time Point Cloud Reconstruction of a Single Image using 3D Supervision. **2022**, ○
- 77 Image sensing with multilayer nonlinear optical neural networks. ○
- 76 A Novel Approach for Synthetic Reduced Nearest-Neighbor Leveraging Neural Networks. **2022**, ○
- 75 Anomaly Detection for Sensor Signals Utilizing Deep Learning Autoencoder-Based Neural Networks. **2023**, 10, 405 ○
- 74 Stretching Deep Architectures: A Deep Learning Method without Back-Propagation Optimization. **2023**, 12, 1537 ○
- 73 A novel centroid based sentence classification approach for extractive summarization of COVID-19 news reports. ○

- 72 TSHN: A Trajectory Similarity Hybrid Networks for Dummy Trajectory Identification. **2023**, ○
- 71 Fundamentals of Machine Learning. **2023**, 77-112 ○
- 70 Airfoil-based convolutional autoencoder and long short-term memory neural network for predicting coherent structures evolution around an airfoil. **2023**, 258, 105883 ○
- 69 Biomaterials Research-Driven Design Visualized by AI Text-Prompt-Generated Images. **2023**, 7, 48 ○
- 68 Deep Belief Network with Swarm Spider Optimization Method for Renewable Energy Power Forecasting. **2023**, 11, 1001 ○
- 67 Low-dose sinogram restoration enabled by conditional GAN with cross-domain regularization in SPECT imaging. **2023**, 20, 9728-9758 ○
- 66 A New Approach to Image Classification Dataset Privacy-Preserving with Deep Neural Network. **2023**, 19-31 ○
- 65 ONLAD-IDS: ONLAD-Based Intrusion Detection System Using SmartNIC. **2022**, ○
- 64 Entangled Quantum Neural Network. **2023**, 245-262 ○
- 63 Research on Prediction Model of Flight Departure Runway. **2023**, ○
- 62 Introduction. **2023**, 1-5 ○
- 61 LDANet: A Lightweight Dynamic Addition Network for Rural Road Extraction from Remote Sensing Images. **2023**, 15, 1829 ○
- 60 Robustness of Deep Learning Models for Vision Tasks. **2023**, 13, 4422 ○
- 59 Physics-Driven Deep Learning Inversion for Direct Current Resistivity Survey Data. **2023**, 61, 1-11 ○
- 58 ??????????. **2023**, 60, 0600001 ○
- 57 Classifying buildings according to seismic vulnerability using Cluster-ANN techniques: application to the city of Murcia, Spain. ○
- 56 An efficient deep neural network to segment lung nodule using optimized HDCCARUNet model. **2023**, 1-17 ○
- 55 ?????????????????(??). **2022**, 51, 20220536 ○

- 54 Deep learning based web service recommendation methods: A survey. **2023**, 1-21 ○
- 53 Free Text Keystroke Dynamics-based Authentication with Continuous Learning: A Case Study. **2022**, ○
- 52 Sound Source Localization Inside a Structure Under Semi-Supervised Conditions. **2023**, 31, 1397-1408 ○
- 51 An Improved Mineral Image Recognition Method Based on Deep Learning. ○
- 50 Fault diagnosis of ZDJ7 railway point machine based on improved DCNN and SVDD classification. ○
- 49 Deep learning based on connected vehicles for icing pavement detection. **2023**, 2, ○
- 48 Unsupervised Denoising Model Based Generative Adversarial Networks. **2023**, 35-46 ○
- 47 On the use of AI-based tools like ChatGPT to support management research. **2023**, 26, 233-241 ○
- 46 The Potential of Data-Driven Engineering Models: An Analysis Across Domains in the Automotive Development Process. ○
- 45 Neural clustering based on implicit maximum likelihood. ○
- 44 An investigation of the reconstruction capacity of stacked convolutional autoencoders for log-mel-spectrograms. **2022**, ○
- 43 Advance of Deep Learning. **2023**, 13-45 ○
- 42 Auto-Encoders in Deep Learning: A Review with New Perspectives. **2023**, 11, 1777 ○
- 41 AI-Based Scheduling Models, Optimization, and Prediction for Hydropower Generation: Opportunities, Issues, and Future Directions. **2023**, 16, 3335 ○
- 40 Research on Response Parameters and Classification Identification Method of Concrete Vibration Process. **2023**, 16, 2958 ○
- 39 Learning Vector Quantized Representation for Cancer Subtypes Identification. **2023**, 107543 ○
- 38 Predicting lattice thermal conductivity of semiconductors from atomic-information-enhanced CGCNN combined with transfer learning. **2023**, 122, 152106 ○
- 37 Metallogenic-Factor Variational Autoencoder for Geochemical Anomaly Detection by Ad-Hoc and Post-Hoc Interpretability Algorithms. ○

- 36 EigenGRF: Layer-Wise Eigen-Learning for Controllable Generative Radiance Fields. **2023**, 189-199 ○
- 35 Solving the Schrödinger Equation in the Configuration Space with Generative Machine Learning. ○
- 34 Assessment of the effectiveness of a convolutional autoencoder for digital image-based automated core logging. **2023**, 211802 ○
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- 31 Bearing Fault Diagnosis Based on Dynamic Convolution and Multi-scale Gradient Information Aggregation Under Variable Working Conditions. **2023**, 249-263 ○
- 30 Study on fault diagnosis of ultra-low-speed rolling bearings based on full vector sound spectrogram. **2023**, 65, 209-216 ○
- 29 An Overview of the Vision-Based Human Action Recognition Field. **2023**, 28, 61 ○
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- 18 Estimation of Vertical Settlement of Earthen Dams Caused by Earthquake Using ANN Model and Wavelet-ANN Composition. ○
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- 11 Flow of Information in Hopfield Neural Networks. **2022**, ○
- 10 An Intelligent Fault Diagnosis Method for Imbalanced Nuclear Power Plant Data Based on Generative Adversarial Networks. ○
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- 8 MAC-GAN: A Community Road Generation Model Combining Building Footprints and Pedestrian Trajectories. **2023**, 12, 181 ○
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- 6 Deep Learning of TimeSignal Intensity Curves from Dynamic Susceptibility Contrast Imaging Enables Tissue Labeling and Prediction of Survival in Glioblastoma. **2023**, 44, 543-552 ○
- 5 Using 3D deep features from CT scans for cancer prognosis based on a video classification model: A multi-dataset feasibility study. ○
- 4 Effectiveness of Feature Extraction System for Multimodal Sensor Information Based on VRAE and Its Application to Object Recognition. **2023**, E106.D, 833-835 ○
- 3 Bone Age Assessment Based on Improved Deep Residual Networks. **2022**, ○
- 2 On the evaluation of outlier detection and one-class classification: a comparative study of algorithms, model selection, and ensembles. ○
- 1 Methods for Fault Diagnosis in Mechanical Systems based on Deep Learning in the Absence or Class Imbalance of Fault Data. **2023**, 40, 345-351 ○

