

Yoshua Bengio

List of Publications by Year in descending order

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Version: 2024-02-01

85
papers

72,787
citations

81434

41
h-index

90395

73
g-index

92
all docs

92
docs citations

92
times ranked

81053
citing authors

#	ARTICLE	IF	CITATIONS
1	Predicting Tactical Solutions to Operational Planning Problems Under Imperfect Information. <i>INFORMS Journal on Computing</i> , 2022, 34, 227-242.	1.0	13
2	CACHE (Critical Assessment of Computational Hit-finding Experiments): A public-private partnership benchmarking initiative to enable the development of computational methods for hit-finding. <i>Nature Reviews Chemistry</i> , 2022, 6, 287-295.	13.8	22
3	Inherent privacy limitations of decentralized contact tracing apps. <i>Journal of the American Medical Informatics Association: JAMIA</i> , 2021, 28, 193-195.	2.2	41
4	Machine learning for combinatorial optimization: A methodological tour d'horizon. <i>European Journal of Operational Research</i> , 2021, 290, 405-421.	3.5	484
5	Toward Causal Representation Learning. <i>Proceedings of the IEEE</i> , 2021, 109, 612-634.	16.4	327
6	How does hemispheric specialization contribute to human-defining cognition?. <i>Neuron</i> , 2021, 109, 2075-2090.	3.8	47
7	CAMAP: Artificial neural networks unveil the role of codon arrangement in modulating MHC-I peptides presentation. <i>PLoS Computational Biology</i> , 2021, 17, e1009482.	1.5	0
8	Toward Training Recurrent Neural Networks for Lifelong Learning. <i>Neural Computation</i> , 2020, 32, 1-35.	1.3	39
9	Generating Multiscale Amorphous Molecular Structures Using Deep Learning: A Study in 2D. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 8532-8537.	2.1	8
10	The need for privacy with public digital contact tracing during the COVID-19 pandemic. <i>The Lancet Digital Health</i> , 2020, 2, e342-e344.	5.9	106
11	Joint Learning of Generative Translator and Classifier for Visually Similar Classes. <i>IEEE Access</i> , 2020, 8, 219160-219173.	2.6	3
12	On the Morality of Artificial Intelligence [Commentary]. <i>IEEE Technology and Society Magazine</i> , 2020, 39, 16-25.	0.6	21
13	BigBrain 3D atlas of cortical layers: Cortical and laminar thickness gradients diverge in sensory and motor cortices. <i>PLoS Biology</i> , 2020, 18, e3000678.	2.6	120
14	Depth with nonlinearity creates no bad local minima in ResNets. <i>Neural Networks</i> , 2019, 118, 167-174.	3.3	31
15	A deep learning framework for neuroscience. <i>Nature Neuroscience</i> , 2019, 22, 1761-1770.	7.1	563
16	Combined Reinforcement Learning via Abstract Representations. <i>Proceedings of the AAAI Conference on Artificial Intelligence</i> , 2019, 33, 3582-3589.	3.6	23
17	Gated Orthogonal Recurrent Units: On Learning to Forget. <i>Neural Computation</i> , 2019, 31, 765-783.	1.3	48
18	Towards Non-Saturating Recurrent Units for Modelling Long-Term Dependencies. <i>Proceedings of the AAAI Conference on Artificial Intelligence</i> , 2019, 33, 3280-3287.	3.6	16

#	ARTICLE	IF	CITATIONS
19	Tell, Draw, and Repeat: Generating and Modifying Images Based on Continual Linguistic Instruction. , 2019, , .		46
20	Interpolated Adversarial Training. , 2019, , .		25
21	Equivalence of Equilibrium Propagation and Recurrent Backpropagation. Neural Computation, 2019, 31, 312-329.	1.3	10
22	Fine-grained attention mechanism for neural machine translation. Neurocomputing, 2018, 284, 171-176.	3.5	149
23	Dynamic Neural Turing Machine with Continuous and Discrete Addressing Schemes. Neural Computation, 2018, 30, 857-884.	1.3	26
24	Light Gated Recurrent Units for Speech Recognition. IEEE Transactions on Emerging Topics in Computational Intelligence, 2018, 2, 92-102.	3.4	227
25	Learning normalized inputs for iterative estimation in medical image segmentation. Medical Image Analysis, 2018, 44, 1-13.	7.0	181
26	On the Iterative Refinement of Densely Connected Representation Levels for Semantic Segmentation. , 2018, , .		9
27	Deep convolutional networks for quality assessment of protein folds. Bioinformatics, 2018, 34, 4046-4053.	1.8	69
28	Ghost Units Yield Biologically Plausible Backprop in Deep Neural Networks. , 2018, , .		1
29	Brain tumor segmentation with Deep Neural Networks. Medical Image Analysis, 2017, 35, 18-31.	7.0	2,234
30	STDP-Compatible Approximation of Backpropagation in an Energy-Based Model. Neural Computation, 2017, 29, 555-577.	1.3	56
31	The representational geometry of word meanings acquired by neural machine translation models. Machine Translation, 2017, 31, 3-18.	1.3	36
32	Context-dependent word representation for neural machine translation. Computer Speech and Language, 2017, 45, 149-160.	2.9	55
33	On integrating a language model into neural machine translation. Computer Speech and Language, 2017, 45, 137-148.	2.9	64
34	On random weights for texture generation in one layer CNNs. , 2017, , .		5
35	Multi-way, multilingual neural machine translation. Computer Speech and Language, 2017, 45, 236-252.	2.9	45
36	Online and offline handwritten Chinese character recognition: A comprehensive study and new benchmark. Pattern Recognition, 2017, 61, 348-360.	5.1	228

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37	The One Hundred Layers Tiramisu: Fully Convolutional DenseNets for Semantic Segmentation. , 2017, , .		934
38	Plug & Play Generative Networks: Conditional Iterative Generation of Images in Latent Space. , 2017, , .		288
39	Use machine learning to find energy materials. Nature, 2017, 552, 23-27.	13.7	85
40	Equilibrium Propagation: Bridging the Gap between Energy-Based Models and Backpropagation. Frontiers in Computational Neuroscience, 2017, 11, 24.	1.2	183
41	Les donnÃ©es au service du savoir. Gestion: Revue Internationale De Gestion, 2017, Vol. 42, 68-70.	0.0	0
42	Learning to Understand Phrases by Embedding the Dictionary. Transactions of the Association for Computational Linguistics, 2016, 4, 17-30.	3.2	81
43	ReSeg: A Recurrent Neural Network-Based Model for Semantic Segmentation. , 2016, , .		145
44	GSNs: generative stochastic networks. Information and Inference, 2016, 5, 210-249.	0.9	19
45	EmoNets: Multimodal deep learning approaches for emotion recognition in video. Journal on Multimodal User Interfaces, 2016, 10, 99-111.	2.0	276
46	Deep learning. Nature, 2015, 521, 436-444.	13.7	52,813
47	Describing Multimedia Content Using Attention-Based Encoder-Decoder Networks. IEEE Transactions on Multimedia, 2015, 17, 1875-1886.	5.2	297
48	Learning semantic representations of objects and their parts. Machine Learning, 2014, 94, 281-301.	3.4	8
49	Conditioning and time representation in long short-term memory networks. Biological Cybernetics, 2014, 108, 23-48.	0.6	10
50	A semantic matching energy function for learning with multi-relational data. Machine Learning, 2014, 94, 233-259.	3.4	463
51	Representation Learning: A Review and New Perspectives. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 1798-1828.	9.7	8,225
52	Learning deep physiological models of affect. IEEE Computational Intelligence Magazine, 2013, 8, 20-33.	3.4	229
53	DETONATION CLASSIFICATION FROM ACOUSTIC SIGNATURE WITH THE RESTRICTED BOLTZMANN MACHINE. Computational Intelligence, 2012, 28, 261-288.	2.1	8
54	Suitability of V1 Energy Models for Object Classification. Neural Computation, 2011, 23, 774-790.	1.3	4

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55	Quickly Generating Representative Samples from an RBM-Derived Process. <i>Neural Computation</i> , 2011, 23, 2058-2073.	1.3	43
56	Alternative time representation in dopamine models. <i>Journal of Computational Neuroscience</i> , 2010, 28, 107-130.	0.6	17
57	DECISION TREES DO NOT GENERALIZE TO NEW VARIATIONS. <i>Computational Intelligence</i> , 2010, 26, 449-467.	2.1	54
58	Tractable Multivariate Binary Density Estimation and the Restricted Boltzmann Forest. <i>Neural Computation</i> , 2010, 22, 2285-2307.	1.3	9
59	Deep Belief Networks Are Compact Universal Approximators. <i>Neural Computation</i> , 2010, 22, 2192-2207.	1.3	123
60	Justifying and Generalizing Contrastive Divergence. <i>Neural Computation</i> , 2009, 21, 1601-1621.	1.3	143
61	A hybrid Pareto model for asymmetric fat-tailed data: the univariate case. <i>Extremes</i> , 2009, 12, 53-76.	0.5	69
62	A Hybrid Pareto Mixture for Conditional Asymmetric Fat-Tailed Distributions. <i>IEEE Transactions on Neural Networks</i> , 2009, 20, 1087-1101.	4.8	11
63	Adaptive Importance Sampling to Accelerate Training of a Neural Probabilistic Language Model. <i>IEEE Transactions on Neural Networks</i> , 2008, 19, 713-722.	4.8	116
64	Representational Power of Restricted Boltzmann Machines and Deep Belief Networks. <i>Neural Computation</i> , 2008, 20, 1631-1649.	1.3	591
65	On the challenge of learning complex functions. <i>Progress in Brain Research</i> , 2007, 165, 521-534.	0.9	13
66	Collaborative Filtering on a Family of Biological Targets. <i>Journal of Chemical Information and Modeling</i> , 2006, 46, 626-635.	2.5	90
67	Nonlocal Estimation of Manifold Structure. <i>Neural Computation</i> , 2006, 18, 2509-2528.	1.3	32
68	Bias in Estimating the Variance of K-Fold Cross-Validation. , 2005, , 75-95.		29
69	Selective Small Molecule Peptidomimetic Ligands of TrkC and TrkA Receptors Afford Discrete or Complete Neurotrophic Activities. <i>Chemistry and Biology</i> , 2005, 12, 1015-1028.	6.2	53
70	Learning Eigenfunctions Links Spectral Embedding and Kernel PCA. <i>Neural Computation</i> , 2004, 16, 2197-2219.	1.3	246
71	Inference for the Generalization Error. <i>Machine Learning</i> , 2003, 52, 239-281.	3.4	612
72	Bias learning, knowledge sharing. <i>IEEE Transactions on Neural Networks</i> , 2003, 14, 748-765.	4.8	35

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73	Robust Regression with Asymmetric Heavy-Tail Noise Distributions. <i>Neural Computation</i> , 2002, 14, 2469-2496.	1.3	11
74	Guest Introduction: Special Issue on New Methods for Model Selection and Model Combination. <i>Machine Learning</i> , 2002, 48, 5-7.	3.4	2
75	Model Selection for Small Sample Regression. <i>Machine Learning</i> , 2002, 48, 9-23.	3.4	84
76	Kernel Matching Pursuit. <i>Machine Learning</i> , 2002, 48, 165-187.	3.4	227
77	Gradient-Based Optimization of Hyperparameters. <i>Neural Computation</i> , 2000, 12, 1889-1900.	1.3	321
78	Boosting Neural Networks. <i>Neural Computation</i> , 2000, 12, 1869-1887.	1.3	209
79	Stochastic Learning of Strategic Equilibria for Auctions. <i>Neural Computation</i> , 1999, 11, 1199-1209.	1.3	1
80	Using a Financial Training Criterion Rather than a Prediction Criterion. <i>International Journal of Neural Systems</i> , 1997, 08, 433-443.	3.2	28
81	LeRec: A NN/HMM Hybrid for On-Line Handwriting Recognition. <i>Neural Computation</i> , 1995, 7, 1289-1303.	1.3	95
82	Phonetically motivated acoustic parameters for continuous speech recognition using artificial neural networks. <i>Speech Communication</i> , 1992, 11, 261-271.	1.6	8
83	Learning the dynamic nature of speech with back-propagation for sequences. <i>Pattern Recognition Letters</i> , 1992, 13, 375-385.	2.6	34
84	Phonetically-based multi-layered neural networks for vowel classification. <i>Speech Communication</i> , 1990, 9, 15-29.	1.6	18
85	Use of multilayer networks for the recognition of phonetic features and phonemes. <i>Computational Intelligence</i> , 1989, 5, 134-141.	2.1	2