Lei Wang

List of Publications by Year
in descending order

169 papers	5,875 citations	126907 33 h-index	110387 64 g-index
172 all docs	172 docs citations	172 times ranked	5257 citing authors

#	Article	IF	Citations
1	AdaBoost with SVM-based component classifiers. Engineering Applications of Artificial Intelligence, 2008, 21, 785-795.	8.1	311
2	Revisiting Local Descriptor Based Image-To-Class Measure for Few-Shot Learning. , 2019, , .		300
3	3D conditional generative adversarial networks for high-quality PET image estimation at low dose. NeuroImage, 2018, 174, 550-562.	4.2	298
4	On Similarity Preserving Feature Selection. IEEE Transactions on Knowledge and Data Engineering, 2013, 25, 619-632.	5.7	249
5	Image annotations by combining multiple evidence & wordNet. , 2005, , .		201
6	Late Fusion Incomplete Multi-View Clustering. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2019, 41, 2410-2423.	13.9	187
7	HEp-2 Cell Image Classification With Deep Convolutional Neural Networks. IEEE Journal of Biomedical and Health Informatics, 2017, 21, 416-428.	6.3	179
8	A Comparative Review of Recent Kinect-Based Action Recognition Algorithms. IEEE Transactions on Image Processing, 2020, 29, 15-28.	9.8	169
9	Feature Selection with Kernel Class Separability. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2008, 30, 1534-1546.	13.9	164
10	Ea-GANs: Edge-Aware Generative Adversarial Networks for Cross-Modality MR Image Synthesis. IEEE Transactions on Medical Imaging, 2019, 38, 1750-1762.	8.9	158
11	Multiple kernel extreme learning machine. Neurocomputing, 2015, 149, 253-264.	5.9	157
12	Generalized 2D principal component analysis for face image representation and recognition. Neural Networks, 2005, 18, 585-594.	5.9	153
13	Multiple Kernel k-means with Incomplete Kernels. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2019, 42, 1-1.	13.9	144
14	3D Auto-Context-Based Locality Adaptive Multi-Modality GANs for PET Synthesis. IEEE Transactions on Medical Imaging, 2019, 38, 1328-1339.	8.9	137
15	Distribution Consistency Based Covariance Metric Networks for Few-Shot Learning. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 8642-8649.	4.9	136
16	Global and Local Structure Preservation for Feature Selection. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 1083-1095.	11.3	135
17	In defense of soft-assignment coding. , 2011, , .		134
18	Miss Detection vs. False Alarm: Adversarial Learning for Small Object Segmentation in Infrared Images. , 2019, , .		124

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19	A Novel Bi-Hemispheric Discrepancy Model for EEG Emotion Recognition. IEEE Transactions on Cognitive and Developmental Systems, 2021, 13, 354-367.	3.8	119
20	Visual place recognition: A survey from deep learning perspective. Pattern Recognition, 2021, 113, 107760.	8.1	111
21	A Novel Unsupervised Camera-Aware Domain Adaptation Framework for Person Re-Identification. , 2019, , .		104
22	From Regional to Global Brain: A Novel Hierarchical Spatial-Temporal Neural Network Model for EEG Emotion Recognition. IEEE Transactions on Affective Computing, 2022, 13, 568-578.	8.3	100
23	Social Friend Recommendation Based on Multiple Network Correlation. IEEE Transactions on Multimedia, 2016, 18, 287-299.	7.2	80
24	An Efficient Approach to Integrating Radius Information into Multiple Kernel Learning. IEEE Transactions on Cybernetics, 2013, 43, 557-569.	9.5	65
25	Scalable Large-Margin Mahalanobis Distance Metric Learning. IEEE Transactions on Neural Networks, 2010, 21, 1524-1530.	4.2	62
26	Hallucinating IDT Descriptors and I3D Optical Flow Features for Action Recognition With CNNs. , 2019, , .		60
27	Beyond Covariance: Feature Representation with Nonlinear Kernel Matrices. , 2015, , .		57
28	Feature Selection With Redundancy-Constrained Class Separability. IEEE Transactions on Neural Networks, 2010, 21, 853-858.	4.2	54
29	3D cGAN based cross-modality MR image synthesis for brain tumor segmentation. , 2018, , .		53
30	Detection and Separation of Smoke From Single Image Frames. IEEE Transactions on Image Processing, 2018, 27, 1164-1177.	9.8	52
31	Compositional Model Based Fisher Vector Coding for Image Classification. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 2335-2348.	13.9	48
32	Attention-Diffusion-Bilinear Neural Network for Brain Network Analysis. IEEE Transactions on Medical Imaging, 2020, 39, 2541-2552.	8.9	44
33	Absent Multiple Kernel Learning Algorithms. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 42, 1303-1316.	13.9	43
34	Smoke Detection in Video: An Image Separation Approach. International Journal of Computer Vision, 2014, 106, 192-209.	15.6	42
35	Medical Image Synthesis via Deep Learning. Advances in Experimental Medicine and Biology, 2020, 1213, 23-44.	1.6	42
36	HEp-2 cell image classification with multiple linear descriptors. Pattern Recognition, 2014, 47, 2400-2408.	8.1	41

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37	A Criterion for Optimizing Kernel Parameters in KBDA for Image Retrieval. IEEE Transactions on Systems, Man, and Cybernetics, 2005, 35, 556-562.	5.0	40
38	ASMFS: Adaptive-similarity-based multi-modality feature selection for classification of Alzheimer's disease. Pattern Recognition, 2022, 126, 108566.	8.1	39
39	DeepKSPD: Learning Kernel-Matrix-Based SPD Representation For Fine-Grained Image Recognition. Lecture Notes in Computer Science, 2018, , 629-645.	1.3	36
40	Graph-Based Place Recognition in Image Sequences with CNN Features. Journal of Intelligent and Robotic Systems: Theory and Applications, 2019, 95, 389-403.	3.4	35
41	Two-Stage Friend Recommendation Based on Network Alignment and Series Expansion of Probabilistic Topic Model. IEEE Transactions on Multimedia, 2017, 19, 1314-1326.	7.2	34
42	Progressive Cross-Camera Soft-Label Learning for Semi-Supervised Person Re-Identification. IEEE Transactions on Circuits and Systems for Video Technology, 2020, 30, 2815-2829.	8.3	34
43	Bootstrapping SVM active learning by incorporating unlabelled images for image retrieval. , 0, , .		33
44	Efficient Dual Approach to Distance Metric Learning. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 394-406.	11.3	32
45	Generalized 2d principal component analysis. , 0, , .		31
46	A Kernel-Induced Space Selection Approach to Model Selection in KLDA. IEEE Transactions on Neural Networks, 2008, 19, 2116-2131.	4.2	31
47	Tensor Representations for Action Recognition. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 648-665.	13.9	31
48	Progressive Mode-Seeking on Graphs for Sparse Feature Matching. Lecture Notes in Computer Science, 2014, , 788-802.	1.3	31
49	Toward A Discriminative Codebook: Codeword Selection across Multi-resolution. , 2007, , .		30
50	HEp-2 Cell Image Classification with Convolutional Neural Networks. , 2014, , .		29
51	Functional Brain Network Classification With Compact Representation of SICE Matrices. IEEE Transactions on Biomedical Engineering, 2015, 62, 1623-1634.	4.2	28
52	Incomplete-Data Oriented Multiview Dimension Reduction via Sparse Low-Rank Representation. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 6276-6291.	11.3	28
53	A Mask Based Deep Ranking Neural Network for Person Retrieval. , 2019, , .		28
54	Two Criteria for Model Selection in Multiclass Support Vector Machines. IEEE Transactions on Systems, Man, and Cybernetics, 2008, 38, 1432-1448.	5.0	26

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55	Deep learning based HEp-2 image classification: A comprehensive review. Medical Image Analysis, 2020, 65, 101764.	11.6	26
56	Learning Discriminative Bayesian Networks from High-Dimensional Continuous Neuroimaging Data. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 2269-2283.	13.9	25
57	The Effect of the Characteristics of the Dataset on the Selection Stability. , 2011, , .		24
58	Learning with multi-resolution overlapping communities. Knowledge and Information Systems, 2013, 36, 517-535.	3.2	24
59	Self-supervising Action Recognition by Statistical Moment and Subspace Descriptors. , 2021, , .		24
60	A Novel Video-Based Smoke Detection Method Using Image Separation. , 2012, , .		23
61	Exploring multifractal€based features for mild Alzheimer's disease classification. Magnetic Resonance in Medicine, 2016, 76, 259-269.	3.0	22
62	Sample-Adaptive GANs: Linking Global and Local Mappings for Cross-Modality MR Image Synthesis. IEEE Transactions on Medical Imaging, 2020, 39, 2339-2350.	8.9	22
63	SA-LuT-Nets: Learning Sample-Adaptive Intensity Lookup Tables for Brain Tumor Segmentation. IEEE Transactions on Medical Imaging, 2021, 40, 1417-1427.	8.9	22
64	A scalable dual approach to semidefinite metric learning. , 2011, , .		21
65	A study of adaboost with svm based weak learners. , 0, , .		20
66	A Framework of 2D Fisher Discriminant Analysis: Application to Face Recognition with Small Number of Training Samples. , 0, , .		19
67	Incorporation of radius-info can be simple with SimpleMKL. Neurocomputing, 2012, 89, 30-38.	5.9	19
68	Discriminative Sparse Inverse Covariance Matrix: Application in Brain Functional Network Classification. , 2014, , .		19
69	An Adaptive Approach to Learning Optimal Neighborhood Kernels. IEEE Transactions on Cybernetics, 2013, 43, 371-384.	9.5	16
70	Learning Discriminative Stein Kernel for SPD Matrices and Its Applications. IEEE Transactions on Neural Networks and Learning Systems, 2016, 27, 1020-1033.	11.3	16
71	Revisiting Metric Learning for SPD Matrix Based Visual Representation. , 2017, , .		15
72	Beyond Covariance: SICE and Kernel Based Visual Feature Representation. International Journal of Computer Vision, 2021, 129, 300-320.	15.6	14

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73	Multi-label SVM active learning for image classification. , 0, , .		13
74	Multilevel video representation with application to keyframe extraction. , 0, , .		13
75	Robust object representation by boosting-like deep learning architecture. Signal Processing: Image Communication, 2016, 47, 490-499.	3.2	13
76	OPML: A one-pass closed-form solution for online metric learning. Pattern Recognition, 2018, 75, 302-314.	8.1	13
77	A Fast Algorithm for Creating a Compact and Discriminative Visual Codebook. Lecture Notes in Computer Science, 2008, , 719-732.	1.3	13
78	A Hierarchical Word-Merging Algorithm with Class Separability Measure. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 417-435.	13.9	12
79	Structural Principles Analysis of Host-Pathogen Protein-Protein Interactions: A Structural Bioinformatics Survey. IEEE Access, 2018, 6, 11760-11771.	4.2	12
80	Locality Adaptive Multi-modality GANs for High-Quality PET Image Synthesis. Lecture Notes in Computer Science, 2018, 11070, 329-337.	1.3	12
81	A multi-resolution approach to learning with overlapping communities. , 2010, , .		11
82	Adversarial Camera Alignment Network for Unsupervised Cross-Camera Person Re-Identification. IEEE Transactions on Circuits and Systems for Video Technology, 2022, 32, 2921-2936.	8.3	11
83	Incorporating prior knowledge into SVM for image retrieval. , 2004, , .		10
84	An efficient radius-incorporated MKL algorithm for Alzheimer×³s disease prediction. Pattern Recognition, 2015, 48, 2141-2150.	8.1	10
85	Subject-adaptive Integration of Multiple SICE Brain Networks with Different Sparsity. Pattern Recognition, 2017, 63, 642-652.	8.1	10
86	Retrieval with knowledge-driven kernel design: an approach to improving SVM-based CBIR with relevance feedback. , 2005, , .		9
87	A generalized probabilistic framework for compact codebook creation. , 2011, , .		9
88	Improving Graph Matching via Density Maximization. , 2013, , .		9
89	Discriminative Brain Effective Connectivity Analysis for Alzheimer's Disease: A Kernel Learning Approach upon Sparse Gaussian Bayesian Network. , 2013, 2013, 2243-2250.		9
90	Density Maximization for Improving Graph Matching With Its Applications. IEEE Transactions on Image Processing, 2015, 24, 2110-2123.	9.8	9

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91	Leveraging Stacked Denoising Autoencoder in Prediction of Pathogen-Host Protein-Protein Interactions. , 2017, , .		9
92	Loss Switching Fusion with Similarity Search for Video Classification. , 2019, , .		9
93	Identifying Anatomical Shape Difference by Regularized Discriminative Direction. IEEE Transactions on Medical Imaging, 2009, 28, 937-950.	8.9	8
94	Towards Data Analytics of Pathogen-Host Protein-Protein Interaction: A Survey. , 2016, , .		8
95	A Generalized Probabilistic Framework for Compact Codebook Creation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 224-237.	13.9	8
96	A Probabilistic Approach to Cross-Region Matching-Based Image Retrieval. IEEE Transactions on Image Processing, 2019, 28, 1191-1204.	9.8	8
97	A framework towards data analytics on hostâ€"pathogen proteinâ€"protein interactions. Journal of Ambient Intelligence and Humanized Computing, 2020, 11, 4667-4679.	4.9	7
98	Learning Sample-Adaptive Intensity Lookup Table for Brain Tumor Segmentation. Lecture Notes in Computer Science, 2020, , 216-226.	1.3	7
99	ReDro: Efficiently Learning Large-Sized SPD Visual Representation. Lecture Notes in Computer Science, 2020, , 1-17.	1.3	7
100	Multi-view Human Motion Capture with an Improved Deformation Skin Model. , 2008, , .		6
101	On the Optimality of Sequential Forward Feature Selection Using Class Separability Measure. , 2011, , .		6
102	A Scalable Unsupervised Feature Merging Approach to Efficient Dimensionality Reduction of High-Dimensional Visual Data. , 2013, , .		6
103	Calibrated Multi-label Classification with Label Correlations. Neural Processing Letters, 2019, 50, 1361-1380.	3.2	6
104	Integrating Functional and Structural Connectivities via Diffusion-Convolution-Bilinear Neural Network. Lecture Notes in Computer Science, 2019, , 691-699.	1.3	6
105	Support Vector Machines for Neuroimage Analysis: Interpretation from Discrimination. , 2014, , 191-220.		6
106	Handling Significant Scale Difference for Object Retrieval in a Supermarket. , 2009, , .		5
107	A Graph-Embedding Approach to Hierarchical Visual Word Mergence. IEEE Transactions on Neural Networks and Learning Systems, 2017, 28, 308-320.	11.3	5
108	Single Image Smoke Detection. Lecture Notes in Computer Science, 2015, , 87-101.	1.3	5

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109	A novel framework for SVM-based image retrieval on large databases. , 2005, , .		4
110	A novel multi-resolution video representation scheme based on kernel PCA. Visual Computer, 2006, 22, 357-370.	3.5	4
111	Sensors for Robotics 2015. Journal of Sensors, 2015, 2015, 1-2.	1.1	4
112	Hyperparameter Estimation in SVM with GPU Acceleration for Prediction of Protein-Protein Interactions. , 2019, , .		4
113	Deep learningâ€augmented radioluminescence imaging for radiotherapy dose verification. Medical Physics, 2021, 48, 6820-6831.	3.0	4
114	Few-shot Unsupervised Domain Adaptation with Image-to-Class Sparse Similarity Encoding. , 2021, , .		4
115	A Scalable Algorithm for Learning a Mahalanobis Distance Metric. Lecture Notes in Computer Science, 2010, , 299-310.	1.3	4
116	A Novel Mix-Normalization Method for Generalizable Multi-Source Person Re-Identification. IEEE Transactions on Multimedia, 2023, 25, 4856-4867.	7.2	4
117	What has my classifier learned? Visualizing the classification rules of bag-of-feature model by support region detection. , 2012, , .		3
118	Multi-modality feature selection with adaptive similarity learning for classification of Alzheimer's disease. , 2018, , .		3
119	Leveraging SMOTE in a Two-Layer Model for Prediction of Protein-Protein Interactions. , 2019, , .		3
120	APEX2S: A twoâ€layer machine learning model for discovery of hostâ€pathogen proteinâ€protein interactions on cloudâ€based multiomics data. Concurrency Computation Practice and Experience, 2020, 32, e5846.	2.2	3
121	Regularized Discriminative Direction for Shape Difference Analysis. Lecture Notes in Computer Science, 2008, 11, 628-635.	1.3	3
122	Compressive Evaluation in Human Motion Tracking. Lecture Notes in Computer Science, 2011, , 177-188.	1.3	3
123	Cross-Modal Attention-Guided Convolutional Network for Multi-modal Cardiac Segmentation. Lecture Notes in Computer Science, 2019, , 601-610.	1.3	3
124	Dataset-Driven Unsupervised Object Discovery for Region-Based Instance Image Retrieval. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2023, 45, 247-263.	13.9	3
125	User-driven lossy compression for images and video. , 2009, , .		2
126	Exploring latent class information for image retrieval using the bag-of-feature model. , 2011, , .		2

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127	Collaborative data analytics towards prediction on pathogen-host protein-protein interactions. , 2017, , .		2
128	Infomax principle based pooling of deep convolutional activations for image retrieval. , 2017, , .		2
129	Towards Elucidating the Structural Principles of Host-Pathogen Protein-Protein Interaction Networks: A Bioinformatics Survey. , 2017, , .		2
130	A Joint Local and Global Deep Metric Learning Method for Caricature Recognition. Lecture Notes in Computer Science, 2019, , 240-256.	1.3	2
131	Deep learning-augmented radiotherapy visualization with a cylindrical radioluminescence system. Physics in Medicine and Biology, 2021, 66, 045014.	3.0	2
132	Hippocampal Shape Classification Using Redundancy Constrained Feature Selection. Lecture Notes in Computer Science, 2010, 13, 266-273.	1.3	2
133	Stability Analysis of Transfer Alignment Filter Based on the Î¼ Theory. Computers, Materials and Continua, 2019, 59, 1015-1026.	1.9	2
134	Discovering Prediction Model for Environmental Distribution Maps. Lecture Notes in Computer Science, 2007, , 99-109.	1.3	2
135	Application of SVMs to the Bag-of-Features Model: A Kernel Perspective. , 2014, , 155-189.		2
136	Auto-calibration of a Compound-Type Omnidirectional Camera. , 0, , .		2
137	Face recognition based on discriminative manifold learning. , 2004, , .		1
138	Breast mass segmentation based on information theory. , 2004, , .		1
139	Video Local Pattern based Image Matching for Visual Mapping. , 2006, , .		1
140	Inter-Domain Routing Validator Based Spoofing Defence System. , 2010, , .		1
141	Structure Emergence in the Evolution of Social Networks and its Case Study. Procedia Computer Science, 2013, 17, 981-988.	2.0	1
142	A Fast Approximate AIB Algorithm for Distributional Word Clustering. , 2013, , .		1
143	Sensors for Robotics. Journal of Sensors, 2013, 2013, 1-2.	1.1	1
144	Image Descriptors from ConvNets: Comparing Global Pooling Methods for Image Retrieval. , 2016, , .		1

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145	Towards Biological Sequence Data Service with Insights. , 2018, , .		1
146	Tumor segmentation via multi-modality joint dictionary learning. , 2018, , .		1
147	Fast Multi-labelling for Stereo Matching. Lecture Notes in Computer Science, 2010, , 524-537.	1.3	1
148	Guided Informative Image Partitioning. Lecture Notes in Computer Science, 2010, , 202-212.	1.3	1
149	Exploring Compact Representation of SICE Matrices for Functional Brain Network Classification. Lecture Notes in Computer Science, 2014, , 59-67.	1.3	1
150	Max-Margin Based Learning for Discriminative Bayesian Network from Neuroimaging Data. Lecture Notes in Computer Science, 2014, 17, 321-328.	1.3	1
151	Advanced Image Retrieval Technology in Future Mobile Teaching and Learning. , 2015, , 835-846.		1
152	A Dynamic Sub-vector Weighting Scheme for Image Retrieval with Relevance Feedback. Pattern Analysis and Applications, 2003, 6, 212-223.	4.6	0
153	Robust multi-level video representation using mean shift analysis. , 0, , .		0
154	Learning Cascaded Reduced-Set SVMs Using Linear Programming. , 2008, , .		0
155	Illumination invariant sequential filtering human tracking. , 2010, , .		0
156	Efficient Learning to Label Images. , 2010, , .		0
157	Accelerating the Divisive Information-Theoretic Clustering of Visual Words. , 2013, , .		0
158	A Method of Discriminative Information Preservation and In-Dimension Distance Minimization Method for Feature Selection. , 2014, , .		0
159	Experimental Study of Unsupervised Feature Learning for HEp-2 Cell Images Clustering. , 2014, , .		0
160	Semi-Supervised Weight Learning for the Spatial Search Method in ConvNet-Based Image Retrieval. , 2016, , .		0
161	Instance Image Retrieval by Aggregating Sample-based Discriminative Characteristics. , 2018, , .		0
162	A Service Computing Framework for Proteomics Analysis and Collaboration of Pathogenic Mechanism Studies. , 2020, , .		0

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163	Medical Imaging Based Diagnosis Through Machine Learning and Data Analysis. Computational Biology, 2021, , 179-225.	0.2	0
164	Feature Subset Selection for Multi-class SVM Based Image Classification. Lecture Notes in Computer Science, 2007, , 145-154.	1.3	0
165	Gradual Sampling and Mutual Information Maximisation for Markerless Motion Capture. Lecture Notes in Computer Science, 2011, , 554-565.	1.3	0
166	Efficient Structured Support Vector Regression. Lecture Notes in Computer Science, 2011, , 586-598.	1.3	0
167	A Novel Design of Mechanical Switch for the High Overload Environment. Computers, Materials and Continua, 2020, 65, 419-432.	1.9	0
168	Dual-scale correlation analysis for robust multi-label classification. Applied Intelligence, 0, , 1.	5.3	0
169	A Multi-Kernel Discriminant Analysis Framework for Specific Radar Emitter Identification. , 2021, , .		0