

Hongmin Cai

List of Publications by Year in descending order

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Version: 2024-02-01

117
papers

1,986
citations

304602

22
h-index

302012

39
g-index

125
all docs

125
docs citations

125
times ranked

2582
citing authors

#	ARTICLE	IF	CITATIONS
1	Discrimination of Breast Cancer with Microcalcifications on Mammography by Deep Learning. <i>Scientific Reports</i> , 2016, 6, 27327.	1.6	197
2	Multiparametric Tissue Characterization of Brain Neoplasms and Their Recurrence Using Pattern Classification of MR Images. <i>Academic Radiology</i> , 2008, 15, 966-977.	1.3	171
3	A New Iterative Triclass Thresholding Technique in Image Segmentation. <i>IEEE Transactions on Image Processing</i> , 2014, 23, 1038-1046.	6.0	118
4	Breast Microcalcification Diagnosis Using Deep Convolutional Neural Network from Digital Mammograms. <i>Computational and Mathematical Methods in Medicine</i> , 2019, 2019, 1-10.	0.7	86
5	Using deep learning algorithms to classify fetal brain ultrasound images as normal or abnormal. <i>Ultrasound in Obstetrics and Gynecology</i> , 2020, 56, 579-587.	0.9	75
6	Hollow SnO ₂ microspheres and their carbon-coated composites for supercapacitors. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2014, 444, 26-32.	2.3	66
7	Simultaneous Interrogation of Cancer Omics to Identify Subtypes With Significant Clinical Differences. <i>Frontiers in Genetics</i> , 2019, 10, 236.	1.1	51
8	Repulsive force based snake model to segment and track neuronal axons in 3D microscopy image stacks. <i>NeuroImage</i> , 2006, 32, 1608-1620.	2.1	50
9	Quantitative analysis and prediction of regional lymph node status in rectal cancer based on computed tomography imaging. <i>European Radiology</i> , 2011, 21, 2318-2325.	2.3	47
10	Diagnosis of Breast Masses from Dynamic Contrast-Enhanced and Diffusion-Weighted MR: A Machine Learning Approach. <i>PLoS ONE</i> , 2014, 9, e87387.	1.1	47
11	Radiomics on multi-modalities MR sequences can subtype patients with non-metastatic nasopharyngeal carcinoma (NPC) into distinct survival subgroups. <i>European Radiology</i> , 2019, 29, 5590-5599.	2.3	43
12	Diagnostic assessment by dynamic contrast-enhanced and diffusion-weighted magnetic resonance in differentiation of breast lesions under different imaging protocols. <i>BMC Cancer</i> , 2014, 14, 366.	1.1	39
13	Causalcall: Nanopore Basecalling Using a Temporal Convolutional Network. <i>Frontiers in Genetics</i> , 2019, 10, 1332.	1.1	39
14	HOGMMNC: a higher order graph matching with multiple network constraints model for gene-drug regulatory modules identification. <i>Bioinformatics</i> , 2019, 35, 602-610.	1.8	38
15	Enhancing multi-view clustering through common subspace integration by considering both global similarities and local structures. <i>Neurocomputing</i> , 2020, 378, 375-386.	3.5	35
16	Feature weight estimation for gene selection: a local hyperlinear learning approach. <i>BMC Bioinformatics</i> , 2014, 15, 70.	1.2	34
17	Classification of COVID-19 by Compressed Chest CT Image through Deep Learning on a Large Patients Cohort. <i>Interdisciplinary Sciences, Computational Life Sciences</i> , 2021, 13, 73-82.	2.2	33
18	Learning a consensus affinity matrix for multi-view clustering via subspaces merging on Grassmann manifold. <i>Information Sciences</i> , 2021, 547, 68-87.	4.0	28

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19	Molecular Prognostic Prediction for Locally Advanced Nasopharyngeal Carcinoma by Support Vector Machine Integrated Approach. PLoS ONE, 2012, 7, e31989.	1.1	26
20	Computer-aided diagnosis for fetal brain ultrasound images using deep convolutional neural networks. International Journal of Computer Assisted Radiology and Surgery, 2020, 15, 1303-1312.	1.7	25
21	Discrimination of malignant and benign breast masses using automatic segmentation and features extracted from dynamic contrast-enhanced and diffusion-weighted MRI. Oncology Letters, 2018, 16, 1521-1528.	0.8	24
22	DETECTION OF MORPHOLOGIC PATTERNS OF DIABETIC MACULAR EDEMA USING A DEEP LEARNING APPROACH BASED ON OPTICAL COHERENCE TOMOGRAPHY IMAGES. Retina, 2021, 41, 1110-1117.	1.0	24
23	Using nonlinear diffusion and mean shift to detect and connect cross-sections of axons in 3D optical microscopy images. Medical Image Analysis, 2008, 12, 666-675.	7.0	23
24	Epithelial-mesenchymal transition biomarkers and support vector machine guided model in preoperatively predicting regional lymph node metastasis for rectal cancer. British Journal of Cancer, 2012, 106, 1735-1741.	2.9	22
25	Fully Automatic Arteriovenous Segmentation in Retinal Images via Topology-Aware Generative Adversarial Networks. Interdisciplinary Sciences, Computational Life Sciences, 2020, 12, 323-334.	2.2	22
26	PROBABILISTIC SEGMENTATION OF BRAIN TUMORS BASED ON MULTI-MODALITY MAGNETIC RESONANCE IMAGES. , 2007, , .		21
27	Development of a ten-signature classifier using a support vector machine integrated approach to subdivide the M1 stage into M1a and M1b stages of nasopharyngeal carcinoma with synchronous metastases to better predict patients' survival. Oncotarget, 2016, 7, 3645-3657.	0.8	21
28	Automatic prediction of treatment outcomes in patients with diabetic macular edema using ensemble machine learning. Annals of Translational Medicine, 2021, 9, 43-43.	0.7	20
29	Automatic Measurements of Fetal Lateral Ventricles in 2D Ultrasound Images Using Deep Learning. Frontiers in Neurology, 2020, 11, 526.	1.1	19
30	Deep subspace clustering to achieve jointly latent feature extraction and discriminative learning. Neurocomputing, 2020, 404, 340-350.	3.5	19
31	DF-Net: Deep fusion network for multi-source vessel segmentation. Information Fusion, 2022, 78, 199-208.	11.7	18
32	Spatially-invariant Style-codes Controlled Makeup Transfer. , 2021, , .		18
33	nbCNV: a multi-constrained optimization model for discovering copy number variants in single-cell sequencing data. BMC Bioinformatics, 2016, 17, 384.	1.2	17
34	Predicting underestimation of ductal carcinoma in situ: a comparison between radiomics and conventional approaches. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 709-721.	1.7	17
35	Identification of Multidimensional Regulatory Modules Through Multi-Graph Matching With Network Constraints. IEEE Transactions on Biomedical Engineering, 2020, 67, 987-998.	2.5	17
36	Low-rank analysis-synthesis dictionary learning with adaptively ordinal locality. Neural Networks, 2019, 119, 93-112.	3.3	16

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37	SeqSeg: A sequential method to achieve nasopharyngeal carcinoma segmentation free from background dominance. <i>Medical Image Analysis</i> , 2022, 78, 102381.	7.0	16
38	Effective image noise removal based on difference eigenvalue. , 2011, , .		15
39	Evaluation of gene-drug common module identification methods using pharmacogenomics data. <i>Briefings in Bioinformatics</i> , 2021, 22, .	3.2	15
40	Machine Learning to Predict ICU Admission, ICU Mortality and Survivors' Length of Stay among COVID-19 Patients: Toward Optimal Allocation of ICU Resources. , 2020, , .		15
41	WaveDec: A Wavelet Approach to Identify Both Shared and Individual Patterns of Copy-Number Variations. <i>IEEE Transactions on Biomedical Engineering</i> , 2018, 65, 353-364.	2.5	14
42	Thermostabilization of Membrane Proteins by Consensus Mutation: A Case Study for a Fungal β -7 Sterol Isomerase. <i>Journal of Molecular Biology</i> , 2020, 432, 5162-5183.	2.0	14
43	Learning Common Harmonic Waves on Stiefel Manifold - A New Mathematical Approach for Brain Network Analyses. <i>IEEE Transactions on Medical Imaging</i> , 2021, 40, 419-430.	5.4	14
44	NPCNet: Jointly Segment Primary Nasopharyngeal Carcinoma Tumors and Metastatic Lymph Nodes in MR Images. <i>IEEE Transactions on Medical Imaging</i> , 2022, 41, 1639-1650.	5.4	14
45	Achieving Accurate Segmentation of Nasopharyngeal Carcinoma in MR Images Through Recurrent Attention. <i>Lecture Notes in Computer Science</i> , 2019, , 494-502.	1.0	13
46	Learning task-driving affinity matrix for accurate multi-view clustering through tensor subspace learning. <i>Information Sciences</i> , 2021, 563, 290-308.	4.0	12
47	Understanding query interfaces by statistical parsing. <i>ACM Transactions on the Web</i> , 2013, 7, 1-22.	2.0	11
48	Optimal combination of feature selection and classification via local hyperplane based learning strategy. <i>BMC Bioinformatics</i> , 2015, 16, 219.	1.2	11
49	Integrating Tensor Similarity to Enhance Clustering Performance. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2022, 44, 2582-2593.	9.7	11
50	A Novel Approach to Segment and Classify Regional Lymph Nodes on Computed Tomography Images. <i>Computational and Mathematical Methods in Medicine</i> , 2012, 2012, 1-9.	0.7	10
51	Multi-View Learning a Decomposable Affinity Matrix via Tensor Self-Representation on Grassmann Manifold. <i>IEEE Transactions on Image Processing</i> , 2021, 30, 8396-8409.	6.0	10
52	Copy number variants calling for single cell sequencing data by multi-constrained optimization. <i>Computational Biology and Chemistry</i> , 2016, 63, 15-20.	1.1	9
53	High-level heterologous expression of the human transmembrane sterol β -7 isomerase in <i>Pichia pastoris</i> . <i>Protein Expression and Purification</i> , 2019, 164, 105463.	0.6	9
54	Survey and comparative assessments of computational multi-omics integrative methods with multiple regulatory networks identifying distinct tumor compositions across pan-cancer data sets. <i>Briefings in Bioinformatics</i> , 2021, 22, .	3.2	9

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55	Development and validation of a deep learning system to classify aetiology and predict anatomical outcomes of macular hole. <i>British Journal of Ophthalmology</i> , 2023, 107, 109-115.	2.1	9
56	Multi-dimensional clustering through fusion of high-order similarities. <i>Pattern Recognition</i> , 2022, 121, 108108.	5.1	8
57	A novel diffusion system for impulse noise removal based on a robust diffusion tensor. <i>Neurocomputing</i> , 2014, 133, 222-230.	3.5	7
58	Deep Multiview Clustering via Iteratively Self-Supervised Universal and Specific Space Learning. <i>IEEE Transactions on Cybernetics</i> , 2022, 52, 11734-11746.	6.2	7
59	Machine learning-based prediction of anatomical outcome after idiopathic macular hole surgery. <i>Annals of Translational Medicine</i> , 2021, 9, 830-830.	0.7	7
60	Low Rank Representation and Its Application in Bioinformatics. <i>Current Bioinformatics</i> , 2018, 13, 508-517.	0.7	7
61	Shape-Constrained Repulsive Snake Method to Segment and Track Neurons in 3D Microscopy Images. , 0, , .		6
62	Combination of effective machine learning techniques and chemometric analysis for evaluation of Bupleuri Radix through high-performance thin-layer chromatography. <i>Analytical Methods</i> , 2013, 5, 6325.	1.3	6
63	A multi-center study of prediction of macular hole status after vitrectomy and internal limiting membrane peeling by a deep learning model. <i>Annals of Translational Medicine</i> , 2021, 9, 51-51.	0.7	6
64	Coarse-to-fine Nasopharyngeal Carcinoma Segmentation in MRI via Multi-stage Rendering. , 2020, , .		6
65	Multiview Deep Graph Infomax to Achieve Unsupervised Graph Embedding. <i>IEEE Transactions on Cybernetics</i> , 2023, 53, 6329-6339.	6.2	6
66	A short review of variants calling for single-cell-sequencing data with applications. <i>International Journal of Biochemistry and Cell Biology</i> , 2017, 92, 218-226.	1.2	5
67	Stress analyses of compound cylinders with interlayer pressure after autofrettage. <i>International Journal of Pressure Vessels and Piping</i> , 2018, 163, 63-67.	1.2	5
68	Molecular Decision Tree Algorithms Predict Individual Recurrence Pattern for Locally Advanced Nasopharyngeal Carcinoma. <i>Journal of Cancer</i> , 2019, 10, 3323-3332.	1.2	5
69	Finding Correlated Patterns via High-Order Matching for Multiple Sourced Biological Data. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 1017-1025.	2.5	5
70	Exsavi: Excavating both sample-wise and view-wise relationships to boost multi-view subspace clustering. <i>Neurocomputing</i> , 2020, 418, 66-78.	3.5	5
71	Methods of privacy-preserving genomic sequencing data alignments. <i>Briefings in Bioinformatics</i> , 2021, 22, .	3.2	5
72	SGUNet: Style-guided UNet for adversely conditioned fundus image super-resolution. <i>Neurocomputing</i> , 2021, 465, 238-247.	3.5	5

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73	Feature Weighting by RELIEF Based on Local Hyperplane Approximation. Lecture Notes in Computer Science, 2012, , 335-346.	1.0	5
74	Detection-and-Excitation Neural Network Achieves Accurate Nasopharyngeal Carcinoma Segmentation in Multi-modality MR Images. , 2021, , .		5
75	A Collaborative Dictionary Learning Model for Nasopharyngeal Carcinoma Segmentation on Multimodalities MR Sequences. Computational and Mathematical Methods in Medicine, 2020, 2020, 1-15.	0.7	4
76	Breast Cancer Subtype by Imbalanced Omics Data through A Deep Learning Fusion Model. , 2020, , .		4
77	Similarity Fusion via Exploiting High Order Proximity for Cancer Subtyping. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2021, PP, 1-1.	1.9	4
78	The Small Open Reading Frameâ€œEncoded Peptides: Advances in Methodologies and Functional Studies. ChemBioChem, 2022, 23, .	1.3	4
79	Two-Dimensional Unsupervised Feature Selection via Sparse Feature Filter. IEEE Transactions on Cybernetics, 2023, 53, 5605-5617.	6.2	4
80	Uncovering shape signatures of <scp>restingâ€œstate</scp> functional connectivity by geometric deep learning on Riemannian manifold. Human Brain Mapping, 2022, , .	1.9	4
81	Enhanced dyes removal properties of hollow SnO₂ Microspheres and SnO₂@C composites. Desalination and Water Treatment, 2015, 56, 1047-1055.	1.0	3
82	Identifying â€œMany-to-Manyâ€œ Relationships Between Gene-Expression Data and Drug-Response Data Via Sparse Binary Matching. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2019, 17, 1-1.	1.9	3
83	Recovering Hidden Diagonal Structures via Non-Negative Matrix Factorization with Multiple Constraints. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2019, 16, 1760-1772.	1.9	3
84	IOAT: an interactive tool for statistical analysis of omics data and clinical data. BMC Bioinformatics, 2021, 22, 326.	1.2	3
85	Estimating Common Harmonic Waves of Brain Networks on Stiefel Manifold. Lecture Notes in Computer Science, 2020, , 367-376.	1.0	3
86	Tensor-based Low-rank and Graph Regularized Representation Learning for Multi-view Clustering. , 2020, , .		3
87	Detecting Brain State Changes via Manifold Mean Shifting. , 2021, , .		3
88	Suspension dynamics simulation based on simulink. , 2011, , .		2
89	Fast and Accurate Clustering of Multiple Modality Data via Feature Matching. IEEE Transactions on Cybernetics, 2022, 52, 5040-5050.	6.2	2
90	Characterizing the propagation pathway of neuropathological events of Alzheimer's disease using harmonic wavelet analysis. Medical Image Analysis, 2022, 79, 102446.	7.0	2

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91	Verifiable Privacy-Preserving Queries on Multi-Source Dynamic DNA Datasets. IEEE Transactions on Cloud Computing, 2023, 11, 1927-1939.	3.1	2
92	Discrimination of recurrent CNVs from individual ones from multisample aCGH by jointly constrained minimization. , 2015, , .		1
93	Multi-norm constrained optimization methods for calling copy number variants in single cell sequencing data. , 2016, , .		1
94	Multi-View Tensor Clustering Through Exploiting Both Within-View and Across-View High-Order Correlations. , 2021, , .		1
95	An Empirical Algorithm for Bias Correction Based on GC Estimation for Single Cell Sequencing. Lecture Notes in Computer Science, 2014, , 15-21.	1.0	1
96	MDAGenera: An Efficient and Accurate Simulator for Multiple Displacement Amplification. Lecture Notes in Computer Science, 2016, , 258-267.	1.0	1
97	Reconstruction of 3D Retina from Multi-viewed Stereo Fundus Images via Dynamic Registration. , 2020, , .		1
98	Multi-Omics Data Clustering via the Guidance of Highly Correlated Features. , 2021, , .		1
99	LIO-CSI: LiDAR inertial odometry with loop closure combined with semantic information. PLoS ONE, 2021, 16, e0261053.	1.1	1
100	Manifold Learning in Detecting the Transitions of Dynamic Functional Connectivities Boosts Brain State-Specific Recognition. , 2022, , .		1
101	Identify Multiple Gene-Drug Common Modules via Constrained Graph Matching. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 4794-4805.	3.9	1
102	Segment and track neurons in 3D by repulsive snake method. , 2005, , .		0
103	New snake algorithm to track neuronal structure in microscopy image. , 2005, , .		0
104	Use Mean Shift to Track Neuronal Axons in 3D. , 2006, , .		0
105	A New Nonlinear Diffusion Method to Improve Image Quality. Proceedings International Conference on Image Processing, 2007, , .	0.0	0
106	Design and implementation of a DIDS. , 2010, , .		0
107	Dynamic response characteristic analysis of vehicle frame based on virtual simulation technology. , 2011, , .		0
108	Modal analysis of drive axle based on OMA time domain method identification. , 2011, , .		0

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109	Quality enhancement with adaptive edge preservation for lymph nodal images. , 2011, , .		0
110	MALBACsim: A Multiple Annealing and Looping Based Amplification Cycles simulator. , 2015, , .		0
111	A Palpation-based and Fluoroscopy-independent Percutaneous Insertion Technique for Medullary Iliac Crest External Fixation Schanz Pins. Techniques in Orthopaedics, 2016, 31, 65-68.	0.1	0
112	A copy-number variation detection pipeline for single cell sequencing data on BGI online. , 2017, , .		0
113	Editorial: Computational Learning Models and Methods Driven by Omics for Precision Medicine. Frontiers in Genetics, 2020, 11, 620976.	1.1	0
114	Effective and Adaptive Refined Multi-metric Similarity Graph Fusion for Multi-view Clustering. Lecture Notes in Computer Science, 2021, , 194-206.	1.0	0
115	Improvements over Adaptive Local Hyperplane to Achieve Better Classification. Lecture Notes in Computer Science, 2011, , 1-10.	1.0	0
116	Optimal Combination of Feature Weight Learning and Classification Based on Local Approximation. Lecture Notes in Computer Science, 2012, , 86-94.	1.0	0
117	Skip-layer network with optimization method for domain adaptive detection. PLoS ONE, 2022, 17, e0263748.	1.1	0