William Zhu

List of Publications by Year
in descending order

155 papers	4,905 citations	196777 29 h-index	111975 67 g-index
160 all docs	160 docs citations	160 times ranked	1782 citing authors

#	ARTICLE	IF	CITATIONS
1	Deep graph clustering with enhanced feature representations for community detection. Applied Intelligence, 2023, 53, 1336-1349.	3.3	2
2	Multiview Deep Matrix Factorization for Shared Compact Representation. IEEE Transactions on Computational Social Systems, 2023, 10, 2739-2751.	3.2	0
3	Saliency: a new selection criterion of important architectures in neural architecture search. Neural Computing and Applications, 2022, 34, 1269-1283.	3.2	3
4	Multigraph Random Walk for Joint Learning of Multiview Clustering and Semisupervised Classification. IEEE Transactions on Computational Social Systems, 2022, 9, 926-939.	3.2	4
5	A CNN-based policy for optimizing continuous action control by learning state sequences. Neurocomputing, 2022, 468, 286-295.	3.5	5
6	Multi-view fuzzy clustering of deep random walk and sparse low-rank embedding. Information Sciences, 2022, 586, 224-238.	4.0	18
7	MDMD options discovery for accelerating exploration in sparse-reward domains. Knowledge-Based Systems, 2022, 241, 108151.	4.0	2
8	Layered feature representation for differentiable architecture search. Soft Computing, 2022, 26, 4741-4753.	2.1	1
9	ACP based reinforcement learning for long-term recommender system. International Journal of Machine Learning and Cybernetics, 2022, 13, 3285-3297.	2.3	1
10	Clustering experience replay for the effective exploitation in reinforcement learning. Pattern Recognition, 2022, 131, 108875.	5.1	9
11	GDPC: generalized density peaks clustering algorithm based on order similarity. International Journal of Machine Learning and Cybernetics, 2021, 12, 719-731.	2.3	9
12	Combating Fake News in â€œLow-Resourceâ€•Languages: Amharic Fake News Detection Accompanied by Resource Crafting. Information (Switzerland), 2021, 12, 20.	1.7	21
13	Deep random walk of unitary invariance for large-scale data representation. Information Sciences, 2021, 554, 1-14.	4.0	7
14	Long-term Recommender System based on ACP Framework. , 2021, , .		0
15	A New Hierarchical Reinforcement Learning Framework for Relation Extraction. , 2021, , .		1
16	A Survey of Social Image Colocalization. IEEE Transactions on Computational Social Systems, 2021, 8, 906-916.	3.2	1
17	Adaptive exploration policy for explorationâ€"exploitation tradeoff in continuous action control optimization. International Journal of Machine Learning and Cybernetics, 2021, 12, 3491-3501.	2.3	6
18	Anchor: The achieved goal to replace the subgoal for hierarchical reinforcement learning. Knowledge-Based Systems, 2021, 225, 107128.	4.0	6

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19	An efficient hybrid sine-cosine Harris hawks optimization for low and high-dimensional feature selection. Expert Systems With Applications, 2021, 176, 114778.	4.4	116
20	Architecture self-attention mechanism: nonlinear optimization for neural architecture search. Journal of Nonlinear and Variational Analysis, 2021, 5, 119-140.	1.0	4
21	Convergence Classes of L -Filters in L , M -Fuzzy Topological Spaces. Journal of Mathematics, 2021, 2021, 1-10.	0.5	0
22	A new similarity combining reconstruction coefficient with pairwise distance for agglomerative clustering. Information Sciences, 2020, 508, 173-182.	4.0	38
23	Hybrid channel based pedestrian detection. Neurocomputing, 2020, 389, 1-8.	3.5	21
24	Optimal Sink Node Placement in Large Scale Wireless Sensor Networks Based on Harris' Hawk Optimization Algorithm. IEEE Access, 2020, 8, 19381-19397.	2.6	91
25	An adaptive kernelized rank-order distance for clustering non-spherical data with high noise. International Journal of Machine Learning and Cybernetics, 2020, 11, 1735-1747.	2.3	14
26	Enhanced Bat Algorithm for Solving Non-Convex Economic Dispatch Problem. Advances in Intelligent Systems and Computing, 2020, , 419-428.	0.5	3
27	Fighting Fake News Using Deep Learning. , 2020, , .		9
28	Long-Term Memory Harris' Hawk Optimization for High Dimensional and Optimal Power Flow Problems. IEEE Access, 2019, 7, 147596-147616.	2.6	61
29	Local gap density for clustering high-dimensional data with varying densities. Knowledge-Based Systems, 2019, 184, 104905.	4.0	21
30	Early Detection of Fake News "Before It Flies High". , 2019, , .		17
31	Characteristic matrices of compound operations of coverings and their relationships with rough sets. International Journal of Machine Learning and Cybernetics, 2019, 10, 75-85.	2.3	2
32	Feature selection for multi-label classification using neighborhood preservation. IEEE/CAA Journal of Automatica Sinica, 2018, 5, 320-330.	8.5	32
33	Sparse Graph Embedding Unsupervised Feature Selection. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2018, 48, 329-341.	5.9	78
34	Dependence space of topology and its application to attribute reduction. International Journal of Machine Learning and Cybernetics, 2018, 9, 691-698.	2.3	8
35	Multi-label feature selection via feature manifold learning and sparsity regularization. International Journal of Machine Learning and Cybernetics, 2018, 9, 1321-1334.	2.3	78
36	Feature Fusing of Feature Pyramid Network for Multi-Scale Pedestrian Detection. , 2018, , .		4

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37	Human Segmentation with Deep Contour-Aware Network. , 2018, , .		1
38	Closed-set lattice and modular matroid induced by covering-based rough sets. International Journal of Machine Learning and Cybernetics, 2017, 8, 191-201.	2.3	6
39	Rough set methods in feature selection via submodular function. Soft Computing, 2017, 21, 3699-3711.	2.1	13
40	Another approach to rough soft hemirings and corresponding decision making. Soft Computing, 2017, 21, 3769-3780.	2.1	15
41	Generative classification model for categorical data based on latent Gaussian process. Pattern Recognition Letters, 2017, 92, 56-61.	2.6	6
42	Applications of Bipartite Graphs and their Adjacency Matrices to Covering-based Rough Sets. Fundamenta Informaticae, 2017, 156, 237-254.	0.3	16
43	Unsupervised feature selection with the largest angle coding. International Journal of Computer Mathematics: Computer Systems Theory, 2017, 2, 66-80.	0.7	1
44	Balise arrangement optimization for train station parking via expert knowledge and genetic algorithm. Applied Mathematical Modelling, 2016, 40, 8513-8529.	2.2	10
45	Connectedness of graphs and its application to connected matroids through covering-based rough sets. Soft Computing, 2016, 20, 1841-1851.	2.1	9
46	An exponent weighted algorithm for minimal cost feature selection. International Journal of Machine Learning and Cybernetics, 2016, 7, 689-698.	2.3	8
47	Applications of repeat degree to coverings of neighborhoods. International Journal of Machine Learning and Cybernetics, 2016, 7, 931-941.	2.3	2
48	On the matroidal structure of generalized rough set based on relation via definable sets. International Journal of Machine Learning and Cybernetics, 2016, 7, 135-144.	2.3	7
49	Test-cost-sensitive attribute reduction on heterogeneous data for adaptive neighborhood model. Soft Computing, 2016, 20, 4813-4824.	2.1	8
50	Optimal feature subset with positive region constraints. , 2015, , .		1
51	A matroidal structure for formal context and its applications on epidemiological study. , 2015, , .		0
52	Parametric Matroid of Rough Set. International Journal of Uncertainty, Fuzziness and Knowlege-Based Systems, 2015, 23, 893-908.	0.9	6
53	Cost-sensitive decision tree with probabilistic pruning mechanism. , 2015, , .		3
54	Connectedness of Graph and Matroid by Covering-Based Rough Sets. Lecture Notes in Computer Science, 2015, , 149-160.	1.0	0

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55	Unsupervised feature selection via maximum projection and minimum redundancy. Knowledge-Based Systems, 2015, 75, 19-29.	4.0	58
56	A cost sensitive decision tree algorithm with two adaptive mechanisms. Knowledge-Based Systems, 2015, 88, 24-33.	4.0	27
57	Overlapping community identification approach in online social networks. Physica A: Statistical Mechanics and Its Applications, 2015, 421, 233-248.	1.2	17
58	Subspace learning for unsupervised feature selection via matrix factorization. Pattern Recognition, 2015, 48, 10-19.	5.1	131
59	Fast randomized algorithm with restart strategy for minimal test cost feature selection. International Journal of Machine Learning and Cybernetics, 2015, 6, 435-442.	2.3	7
60	A Comparison of Two Types of Covering-Based Rough Sets Through the Complement of Coverings. Lecture Notes in Computer Science, 2015, , 90-101.	1.0	0
61	The Connectivity of the Covering Approximation Space. Lecture Notes in Computer Science, 2015, , 435-445.	1.0	0
62	Sparse Matrix Feature Selection in Multi-label Learning. Lecture Notes in Computer Science, 2015, , 332-339.	1.0	0
63	The Matroidal Structures of the Second Type of Covering-Based Rough Set. Lecture Notes in Computer Science, 2015, , 231-242.	1.0	0
64	A Variable Precision Covering-Based Rough Set Model Based on Functions. Scientific World Journal, The, 2014, 2014, 1-5.	0.8	2
65	Matroidal Structure of Generalized Rough Sets Based on Tolerance Relations. Scientific World Journal, The, 2014, 2014, 1-7.	0.8	1
66	An approach to covering-based rough sets through bipartite graphs. , 2014, , .		1
67	Comparison of Discretization Approaches for Granular Association Rule Mining. Canadian Journal of Electrical and Computer Engineering, 2014, 37, 157-167.	1.5	13
68	FAST RANDOMIZED ALGORITHM FOR MINIMAL TEST COST ATTRIBUTE REDUCTION. International Journal of Reliability, Quality and Safety Engineering, 2014, 21, 1450028.	0.4	0
69	Rough Set Characterization for 2-circuit Matroid. Fundamenta Informaticae, 2014, 129, 377-393.	0.3	10
70	Condition for neighbourhoods induced by a covering to be equal to the covering itself. International Journal of Granular Computing, Rough Sets and Intelligent Systems, 2014, 3, 195.	0.3	0
71	On three types of covering-based rough sets via definable sets. , 2014, , .		2
72	Covering-based rough sets on covering-circuit matroids. , 2014, , .		0

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73	Geometric Lattice Structure of Covering and Its Application to Attribute Reduction through Matroids. Journal of Applied Mathematics, 2014, 2014, 1-8.	0.4	1
74	Characteristic matrix of covering and its application to Boolean matrix decomposition. Information Sciences, 2014, 263, 186-197.	4.0	35
75	Optimal cost-sensitive granularization based on rough sets for variable costs. Knowledge-Based Systems, 2014, 65, 72-82.	4.0	30
76	Closed-set lattice of regular sets based on a serial and transitive relation through matroids. International Journal of Machine Learning and Cybernetics, 2014, 5, 395-401.	2.3	5
77	An improved artificial bee colony algorithm for minimal time cost reduction. International Journal of Machine Learning and Cybernetics, 2014, 5, 743-752.	2.3	11
78	Conditions for coverings to induce matroids. International Journal of Machine Learning and Cybernetics, 2014, 5, 947-954.	2.3	9
79	Secondary basis unique augmentation matroids and union minimal matroids. International Journal of Machine Learning and Cybernetics, 2014, 5, 955-962.	2.3	3
80	Feature selection with test cost constraint. International Journal of Approximate Reasoning, 2014, 55, 167-179.	1.9	143
81	Graph and matrix approaches to rough sets through matroids. Information Sciences, 2014, 288, 1-11.	4.0	17
82	Nullity-based matroid of rough sets and its application to attribute reduction. Information Sciences, 2014, 263, 153-165.	4.0	25
83	Matrix approaches to rough sets through vector matroids over fields. International Journal of Granular Computing, Rough Sets and Intelligent Systems, 2014, 3, 179.	0.3	5
84	Top-N Recommendation Based on Granular Association Rules. Lecture Notes in Computer Science, 2014, , 194-205.	1.0	3
85	Feature Selection with Positive Region Constraint for Test-Cost-Sensitive Data. Lecture Notes in Computer Science, 2014, , 23-33.	1.0	1
86	Attribute Reduction in Time-cost-sensitive Decision Systems through Backtracking. Journal of Information and Computational Science, 2014, 11, 597-606.	0.1	3
87	Mining Significant Granular Association Rules for Diverse Recommendation. Lecture Notes in Computer Science, 2014, , 120-127.	1.0	2
88	A New Type of Covering-Based Rough Sets. Lecture Notes in Computer Science, 2014, , 489-499.	1.0	0
89	Feature Selection with Positive Region Constraint for Test-Cost-Sensitive Data. Lecture Notes in Computer Science, 2014, , 23-33.	1.0	0
90	Feature Selection with Time Cost Constraint. Journal of Information and Computational Science, 2014, 11, 201-210.	0.1	0

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91	A Logarithmic Weighted Algorithm for Minimal Test Cost Attribute Reduction. Lecture Notes in Computer Science, 2014, , 129-138.	1.0	0
92	Covering Approximations in Set-Valued Information Systems. Lecture Notes in Computer Science, 2014, , 663-672.	1.0	0
93	Global Best Artificial Bee Colony for Minimal Test Cost Attribute Reduction. Lecture Notes in Computer Science, 2014, , 101-110.	1.0	0
94	Matroidal structure of generalized rough sets based on symmetric and transitive relations. , 2013, , .		2
95	Granular association rules for multi-valued data. , 2013, , .		8
96	A comparative study of discretization approaches for granular association rule mining. , 2013, , .		6
97	Multi-objective cost-sensitive attribute reduction. , 2013, , .		3
98	Quantitative analysis for covering-based rough sets through the upper approximation number. Information Sciences, 2013, 220, 483-491.	4.0	45
99	Four matroidal structures of covering and their relationships with rough sets. International Journal of Approximate Reasoning, 2013, 54, 1361-1372.	1.9	14
100	A matroidal approach to rough set theory. Theoretical Computer Science, 2013, 471, 1-11.	0.5	41
101	Rough matroids based on relations. Information Sciences, 2013, 232, 241-252.	4.0	53
102	Ant Colony Optimization with Three Stages for Independent Test Cost Attribute Reduction. Mathematical Problems in Engineering, 2013, 2013, 1-11.	0.6	5
103	Test-Cost-Sensitive Attribute Reduction of Data with Normal Distribution Measurement Errors. Mathematical Problems in Engineering, 2013, 2013, 1-12.	0.6	12
104	Covering Cycle Matroid. ISRN Applied Mathematics, 2013, 2013, 1-12.	0.5	1
105	Parametric Rough Sets with Application to Granular Association Rule Mining. Mathematical Problems in Engineering, 2013, 2013, 1-13.	0.6	7
106	Applications of Matrices to a Matroidal Structure of Rough Sets. Journal of Applied Mathematics, 2013, 2013, 1-9.	0.4	9
107	Equivalent Characterizations of Some Graph Problems by Covering-Based Rough Sets. Journal of Applied Mathematics, 2013, 2013, 1-7.	0.4	4
108	Covering-Based Rough Sets on Eulerian Matroids. Journal of Applied Mathematics, 2013, 2013, 1-8.	0.4	9

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109	Cost-Sensitive Feature Selection of Numeric Data with Measurement Errors. Journal of Applied Mathematics, 2013, 2013, 1-13.	0.4	13
110	Mining top-k granular association rules for recommendation. , 2013, , .		7
111	Topological Characterizations for Three Covering Approximation Operators. Lecture Notes in Computer Science, 2013, , 277-284.	1.0	4
112	A Backtracking Approach to Minimal Cost Feature Selection of Numerical Data. Journal of Information and Computational Science, 2013, 10, 4105-4115.	0.1	9
113	Comparative Study between Extension of Covering Approximation Space and Its Induction through Transversal Matroid. Lecture Notes in Computer Science, 2013, , 225-235.	1.0	0
114	Matroidal Structure of Rough Sets from the Viewpoint of Graph Theory. Journal of Applied Mathematics, 2012, 2012, 1-27.	0.4	19
115	Matroidal Structure of Rough Sets Based on Serial and Transitive Relations. Journal of Applied Mathematics, 2012, 2012, 1-16.	0.4	6
116	Geometric Lattice Structure of Covering-Based Rough Sets through Matroids. Journal of Applied Mathematics, 2012, 2012, 1-25.	0.4	6
117	Characteristic of partition-circuit matroid through approximation number. , 2012, , .		3
118	Granular association rules with four subtypes. , 2012, , .		11
119	Characterization of attribute reduction of decision system through matroid theory. , 2012, , .		0
120	Ant colony optimization to minimal test cost reduction. , 2012, , .		7
121	An improved genetic algorithm to minimal test cost reduction. , 2012, , .		2
122	Characteristics of 2-circuit matroids through rough sets. , 2012, , .		1
123	Matroidal structure of rough sets and its characterization to attribute reduction. Knowledge-Based Systems, 2012, 36, 155-161.	4.0	46
124	The fourth type of covering-based rough sets. Information Sciences, 2012, 201, 80-92.	4.0	89
125	Attribute reduction of data with error ranges and test costs. Information Sciences, 2012, 211, 48-67.	4.0	105
126	A Competition Strategy to Cost-Sensitive Decision Trees. Lecture Notes in Computer Science, 2012, , 359-368.	1.0	6

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127	Minimal Test Cost Feature Selection with Positive Region Constraint. Lecture Notes in Computer Science, 2012, , 259-266.	1.0	4
128	Granular Association Rule Mining through Parametric Rough Sets. Lecture Notes in Computer Science, 2012, , 320-331.	1.0	4
129	A genetic algorithm to the minimal test cost reduct problem. , 2011, , .		14
130	Test-cost-sensitive attribute reduction based on neighborhood rough set. , 2011, , .		12
131	The vectorially matroidal structure of generalized rough sets based on relations. , 2011, , .		3
132	Test-cost-sensitive attribute reduction. Information Sciences, 2011, 181, 4928-4942.	4.0	228
133	Reducible matroid and reducible element of covering-based rough sets. , 2011, , .		1
134	Matroidal approaches to generalized rough sets based on relations. International Journal of Machine Learning and Cybernetics, 2011, 2, 273-279.	2.3	71
135	Optimal sub-reducts in the dynamic environment. , 2011, , .		5
136	Matroidal structure of covering-based rough sets through the upper approximation number. International Journal of Granular Computing, Rough Sets and Intelligent Systems, 2011, 2, 141.	0.3	36
137	Rough matroid. , 2011, , .		5
138	Optimal Sub-Reducts with Test Cost Constraint. Lecture Notes in Computer Science, 2011, , 57-62.	1.0	10
139	Transversal and Function Matroidal Structures of Covering-Based Rough Sets. Lecture Notes in Computer Science, 2011, , 146-155.	1.0	14
140	Test Cost Constraint Reduction with Common Cost. Lecture Notes in Computer Science, 2011, , 55-63.	1.0	0
141	Bipartite Graphs and Coverings. Lecture Notes in Computer Science, 2011, , 722-727.	1.0	2
142	Relationship among basic concepts in covering-based rough sets. Information Sciences, 2009, 179, 2478-2486.	4.0	236
143	A Web Text Filter Based on Rough Set Weighted Bayesian. , 2009, , .		2
144	The algebraic structures of generalized rough set theory. Information Sciences, 2008, 178, 4105-4113.	4.0	209

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145	On Three Types of Covering-Based Rough Sets. IEEE Transactions on Knowledge and Data Engineering, 2007, 19, 1131-1144.	4.0	411
146	Topological approaches to covering rough sets. Information Sciences, 2007, 177, 1499-1508.	4.0	504
147	Generalized rough sets based on relations. Information Sciences, 2007, 177, 4997-5011.	4.0	367
148	A New Type of Covering Rough Set. , 2006, , .		70
149	Properties of the Fourth Type of Covering-Based Rough Sets. , 2006, , .		16
150	Properties of the Second Type of Covering-Based Rough Sets. , 2006, , .		28
151	Covering Based Granular Computing for Conflict Analysis. Lecture Notes in Computer Science, 2006, , 566-571.	1.0	38
152	Axiomatic Systems of Generalized Rough Sets. Lecture Notes in Computer Science, 2006, , 216-221.	1.0	14
153	Binary Relation Based Rough Sets. Lecture Notes in Computer Science, 2006, , 276-285.	1.0	33
154	Reduction and axiomization of covering generalized rough sets. Information Sciences, 2003, 152, 217-230.	4.0	619
155	WDIBS: Wasserstein deterministic information bottleneck for state abstraction to balance state-compression and performance. Applied Intelligence, 0, , 1.	3.3	0