Stan Matwin

List of Publications by Year in descending order

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174	3,833	236925	175258
papers	citations	25 h-index	52 g-index

187	187	187	3363
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Machine Learning for the Detection of Oil Spills in Satellite Radar Images. Machine Learning, 1998, 30, 195-215.	5.4	986
2	A review on particle swarm optimization algorithm and its variants to clustering high-dimensional data. Artificial Intelligence Review, 2015, 44, 23-45.	15.7	255
3	Improving Fishing Pattern Detection from Satellite AIS Using Data Mining and Machine Learning. PLoS ONE, 2016, 11, e0158248.	2.5	126
4	Unsupervised Named-Entity Recognition: Generating Gazetteers and Resolving Ambiguity. Lecture Notes in Computer Science, 2006, , 266-277.	1.3	121
5	Offensive Language Detection Using Multi-level Classification. Lecture Notes in Computer Science, 2010, , 16-27.	1.3	108
6	Fast Unsupervised Online Drift Detection Using Incremental Kolmogorov-Smirnov Test. , 2016, , .		81
7	A new algorithm for reducing the workload of experts in performing systematic reviews. Journal of the American Medical Informatics Association: JAMIA, 2010, 17, 446-453.	4.4	71
8	Discriminative parameter learning for Bayesian networks. , 2008, , .		67
9	Data mining to predict aircraft component replacement. IEEE Intelligent Systems, 1999, 14, 59-66.	0.2	65
10	Learning Two-Tiered Descriptions of Flexible Concepts: The POSEIDON System. Machine Learning, 1992, 8, 5-43.	5.4	55
11	Privacy-preserving collaborative association rule mining. Journal of Network and Computer Applications, 2007, 30, 1216-1227.	9.1	53
12	Representing the negotiation process with a rule-based formalism. Theory and Decision, 1988, 25, 225-257.	1.0	50
13	Knowledge-based clustering of ship trajectories using density-based approach. , 2014, , .		49
14	Learning and Evaluation in the Presence of Class Hierarchies: Application to Text Categorization. Lecture Notes in Computer Science, 2006, , 395-406.	1.3	49
15	GRASP-UTS: an algorithm for unsupervised trajectory segmentation. International Journal of Geographical Information Science, 2015, 29, 46-68.	4.8	40
16	Formal correctness of conflict detection for firewalls. , 2007, , .		39
17	Exploiting the systematic review protocol for classification of medical abstracts. Artificial Intelligence in Medicine, 2011, 51, 17-25.	6.5	39
18	Improving the Interpretability of Deep Neural Networks with Knowledge Distillation. , 2018, , .		35

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19	Classifying data from protected statistical datasets. Computers and Security, 2010, 29, 875-890.	6.0	34
20	Performance of a deep neural network at detecting North Atlantic right whale upcalls. Journal of the Acoustical Society of America, 2020, 147, 2636-2646.	1.1	34
21	Give more data, awareness and control to individual citizens, and they will help COVID-19 containment. Ethics and Information Technology, 2021, 23, 1-6.	3.8	33
22	Monitoring and recommending privacy settings in social networks. , 2013, , .		31
23	Predicting Transportation Modes of GPS Trajectories Using Feature Engineering and Noise Removal. Lecture Notes in Computer Science, 2018, , 259-264.	1.3	31
24	Black Box Explanation by Learning Image Exemplars in the Latent Feature Space. Lecture Notes in Computer Science, 2020, , 189-205.	1.3	31
25	PROGRAPH: A preliminary report. Computer Languages, Systems and Structures, 1985, 10, 91-126.	0.3	30
26	A Tree-Based Decision Model to Support Prediction of the Severity of Asthma Exacerbations in Children. Journal of Medical Systems, 2010, 34, 551-562.	3.6	30
27	deepBioWSD: effective deep neural word sense disambiguation of biomedical text data. Journal of the American Medical Informatics Association: JAMIA, 2019, 26, 438-446.	4.4	29
28	Interpretable Deep Convolutional Neural Networks via Meta-learning. , 2018, , .		28
29	Incremental anomaly detection using two-layer cluster-based structure. Information Sciences, 2018, 429, 315-331.	6.9	27
30	Pay Attention to Evolution: Time Series Forecasting With Deep Graph-Evolution Learning. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 5368-5384.	13.9	27
31	Privacy-Preserving Collaborative Association Rule Mining. Lecture Notes in Computer Science, 2005, , 153-165.	1.3	26
32	Parallelizing Feature Selection. Algorithmica, 2006, 45, 433-456.	1.3	25
33	Ensembles of label noise filters: a ranking approach. Data Mining and Knowledge Discovery, 2016, 30, 1192-1216.	3.7	25
34	ANALYTiC: An Active Learning System for Trajectory Classification. IEEE Computer Graphics and Applications, 2017, 37, 28-39.	1.2	25
35	Privacy-Preserving Data Mining Techniques: Survey and Challenges. Studies in Applied Philosophy, Epistemology and Rational Ethics, 2013, , 209-221.	0.3	24
36	simDEF: definition-based semantic similarity measure of gene ontology terms for functional similarity analysis of genes. Bioinformatics, 2016, 32, 1380-1387.	4.1	24

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37	Hierarchical Classification Approach to Emotion Recognition in Twitter. , 2012, , .		23
38	Learning from Imbalanced Data Using Ensemble Methods and Cluster-Based Undersampling. Lecture Notes in Computer Science, 2015, , 69-83.	1.3	21
39	Sub-unification: A Tool for Efficient Induction of Recursive Programs. , 1992, , 273-281.		21
40	Advantages of a non-technical XACML notation in role-based models. , 2011, , .		19
41	A Crypto-Based Approach to Privacy-Preserving Collaborative Data Mining. , 2006, , .		18
42	Task Oriented Privacy Preserving Data Publishing Using Feature Selection. Lecture Notes in Computer Science, 2014, , 143-154.	1.3	18
43	Building navigation networks from multi-vessel trajectory data. GeoInformatica, 2021, 25, 69-97.	2.7	18
44	Aircraft Fuselage Corrosion Detection Using Artificial Intelligence. Sensors, 2021, 21, 4026.	3.8	18
45	A case-based approach to software reuse. Journal of Intelligent Information Systems, 1993, 2, 165-197.	3.9	17
46	Predicting Crime Using Spatial Features. Lecture Notes in Computer Science, 2018, , 367-373.	1.3	17
47	Marine Mammal Species Classification Using Convolutional Neural Networks and a Novel Acoustic Representation. Lecture Notes in Computer Science, 2020, , 290-305.	1.3	17
48	A Non-technical User-Oriented Display Notation for XACML Conditions. Lecture Notes in Business Information Processing, 2009, , 53-64.	1.0	17
49	Vessel route anomaly detection with Hadoop MapReduce. , 2014, , .		16
50	Using Feature Selection to Improve the Utility of Differentially Private Data Publishing. Procedia Computer Science, 2014, 37, 511-516.	2.0	16
51	CRISIS: Integrating AIS and Ocean Data Streams Using Semantic Web Standards for Event Detection. , 2019, , .		16
52	SWS: an unsupervised trajectory segmentation algorithm based on change detection with interpolation kernels. GeoInformatica, 2021, 25, 269-289.	2.7	16
53	Fishing Activity Detection from AIS Data Using Autoencoders. Lecture Notes in Computer Science, 2016, , 33-39.	1.3	16
54	Automating reuse of software for expert system analysis of remote sensing data. IEEE Transactions on Geoscience and Remote Sensing, 1994, 32, 525-533.	6.3	15

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55	Strategies for Reducing Risks of Inconsistencies in Access Control Policies. , 2010, , .		14
56	Meta-MapReduce for scalable data mining. Journal of Big Data, 2015, 2, .	11.0	14
57	Fusing Iris, Palmprint and Fingerprint in a Multi-biometric Recognition System. , 2016, , .		14
58	Data augmentation for the classification of North Atlantic right whales upcalls. Journal of the Acoustical Society of America, 2021, 149, 2520-2530.	1.1	14
59	Processing OLAP Queries over an Encrypted Data Warehouse Stored in the Cloud. Lecture Notes in Computer Science, 2014, , 195-207.	1.3	13
60	A Trajectory Scoring Tool for Local Anomaly Detection in Maritime Traffic Using Visual Analytics. ISPRS International Journal of Geo-Information, 2021, 10, 412.	2.9	13
61	INFERRING AND REVISING THEORIES WITH CONFIDENCE: ANALYZING BILINGUALISM IN THE 1901 CANADIAN CENSUS. Applied Artificial Intelligence, 2006, 20, 1-33.	3.2	12
62	Privacy-preserving multi-party decision tree induction. International Journal of Business Intelligence and Data Mining, 2007, 2, 197.	0.2	12
63	Resampling and Cost-Sensitive Methods for Imbalanced Multi-instance Learning. , 2013, , .		12
64	Personal Privacy Protection in Time of Big Data. Studies in Computational Intelligence, 2016, , 365-380.	0.9	12
65	Brain network topology predicts participant adherence to mental training programs. Network Neuroscience, 2020, 4, 528-555.	2.6	12
66	Cost-Sensitive Boosting Algorithms for Imbalanced Multi-instance Datasets. Lecture Notes in Computer Science, 2013, , 174-186.	1.3	12
67	COVID-19 Pandemic: Identifying Key Issues Using Social Media and Natural Language Processing. Journal of Healthcare Informatics Research, 2022, 6, 174-207.	7.6	12
68	Filtering Multi-Instance Problems to Reduce Dimensionality in Relational Learning. Journal of Intelligent Information Systems, 2004, 22, 23-40.	3.9	11
69	A distributed instance-weighted SVM algorithm on large-scale imbalanced datasets. , 2014, , .		11
70	A fast and noise resilient cluster-based anomaly detection. Pattern Analysis and Applications, 2017, 20, 183-199.	4.6	11
71	A Semi-Supervised Approach for the Semantic Segmentation of Trajectories. , 2018, , .		11
72	Machine learning method for software quality model building. Lecture Notes in Computer Science, 1999, , 565-573.	1.3	10

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73	Direct comparison between support vector machine and multinomial naive Bayes algorithms for medical abstract classification. Journal of the American Medical Informatics Association: JAMIA, 2012, 19, 917-917.	4.4	10
74	Dream sentiment analysis using second order soft co-occurrences (SOSCO) and time course representations. Journal of Intelligent Information Systems, 2014, 42, 393.	3.9	10
75	A non-technical XACML target editor for dynamic access control systems. , 2014, , .		10
76	Wise Sliding Window Segmentation: A Classification-Aided Approach for Trajectory Segmentation. Lecture Notes in Computer Science, 2020, , 208-219.	1.3	10
77	Active Learning with Visualization for Text Data. , 2017, , .		9
78	Multiple-aspect analysis of semantic trajectories(MASTER). International Journal of Geographical Information Science, 2021, 35, 763-766.	4.8	9
79	Challenges in Vessel Behavior and Anomaly Detection: From Classical Machine Learning to Deep Learning. Lecture Notes in Computer Science, 2020, , 401-407.	1.3	9
80	Automated Approach To Classification Of Mine-Like Objects Using Multiple-Aspect Sonar Images. Journal of Artificial Intelligence and Soft Computing Research, 2014, 4, 133-148.	4.3	9
81	A logic-based knowledge source system for natural language documents. Data and Knowledge Engineering, 1985, 1, 201-231.	3.4	8
82	Improving point-based AIS trajectory classification with partition-wise gated recurrent units. , 2017, , .		8
83	Risk-Aware Individual Trajectory Data Publishing With Differential Privacy. IEEE Access, 2021, 9, 7421-7438.	4.2	8
84	Sanitization of Call Detail Records via Differentially-Private Bloom Filters. Lecture Notes in Computer Science, 2015, , 223-230.	1.3	8
85	Classifying Biomedical Abstracts Using Committees of Classifiers and Collective Ranking Techniques. Lecture Notes in Computer Science, 2009, , 224-228.	1.3	8
86	Extending AdaBoost to Iteratively Vary Its Base Classifiers. Lecture Notes in Computer Science, 2011, , 384-389.	1.3	8
87	Learning Recursive Relations with Randomly Selected Small Training Sets. , 1994, , 12-18.		8
88	Using SVM with Adaptively Asymmetric MisClassification Costs for Mine-Like Objects Detection. , 2012, , .		7
89	Privacy-aware filter-based feature selection. , 2014, , .		7
90	A framework for a privacy-aware feature selection evaluation measure. , 2015, , .		7

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91	Recurrent Neural Networks with Stochastic Layers for Acoustic Novelty Detection. , 2019, , .		7
92	Predicting Fishing Effort and Catch Using Semantic Trajectories and Machine Learning. Lecture Notes in Computer Science, 2020, , 83-99.	1.3	7
93	A Review of Attribute Disclosure Control. Studies in Computational Intelligence, 2015, , 41-61.	0.9	7
94	Privacy-Preserving Naive Bayesian Classification over Horizontally Partitioned Data. Studies in Computational Intelligence, 2008, , 529-538.	0.9	7
95	Identifying Fishing Activities from AIS Data with Conditional Random Fields. , 0, , .		7
96	Can Anonymous Posters on Medical Forums be Reidentified?. Journal of Medical Internet Research, 2013, 15, e215.	4.3	7
97	LEW: learning by watching. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1990, 12, 294-308.	13.9	6
98	Performance of SVM and Bayesian classifiers on the systematic review classification task. Journal of the American Medical Informatics Association: JAMIA, 2011, 18, 104.2-105.	4.4	6
99	Data Clustering Using Hybrid Particle Swarm Optimization. Lecture Notes in Computer Science, 2012, , 159-166.	1.3	6
100	Network traffic classification using AdaBoost Dynamic. , 2013, , .		6
101	One Single Deep Bidirectional LSTM Network for Word Sense Disambiguation of Text Data. Lecture Notes in Computer Science, 2018, , 96-107.	1.3	6
102	Examining the impact of cross-domain learning on crime prediction. Journal of Big Data, 2021, 8, 96.	11.0	6
103	Association between surgical wait time and hospital length of stay in primary total knee and hip arthroplasty. Bone & Joint Open, 2021, 2, 679-684.	2.6	6
104	Beyond the Bag of Words: A Text Representation for Sentence Selection. Lecture Notes in Computer Science, 2006, , 324-335.	1.3	6
105	How to Extract Relevant Knowledge from Tweets?. Communications in Computer and Information Science, 2013, , 111-120.	0.5	6
106	Parameterized Contrast in Second Order Soft Co-occurrences: A Novel Text Representation Technique in Text Mining and Knowledge Extraction. , 2009, , .		5
107	French presidential elections. , 2012, , .		5
108	HALT: Hybrid anonymization of longitudinal transactions. , 2013, , .		5

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109	Applying instance-weighted support vector machines to class imbalanced datasets. , 2014, , .		5
110	Challenges of Composing XACML Policies. , 2014, , .		5
111	Case Authoring from Text and Historical Experiences. Lecture Notes in Computer Science, 2003, , 222-236.	1.3	5
112	Task Adaptive Metric Space for Medium-Shot Medical Image Classification. Lecture Notes in Computer Science, 2019, , 147-155.	1.3	5
113	Anomaly Detection in Maritime Domain based on Spatio-Temporal Analysis of AIS Data Using Graph Neural Networks. , 2021, , .		5
114	Robustness of Classifiers to Changing Environments. Lecture Notes in Computer Science, 2010, , 232-243.	1.3	4
115	An Algorithm for Compression of XACML Access Control Policy Sets by Recursive Subsumption. , 2012, , .		4
116	Ensemble of Multiple Kernel SVM Classifiers. Lecture Notes in Computer Science, 2014, , 239-250.	1.3	4
117	A fast noise resilient anomaly detection using GMM-based collective labelling. , 2015, , .		4
118	Using Deep Reinforcement Learning Methods for Autonomous Vessels in 2D Environments. Lecture Notes in Computer Science, 2020, , 220-231.	1.3	4
119	Inner Ensembles: Using Ensemble Methods Inside the Learning Algorithm. Lecture Notes in Computer Science, 2013, , 33-48.	1.3	4
120	Analyzing the Impact of Foursquare and Streetlight Data with Human Demographics on Future Crime Prediction. Transactions on Computational Science and Computational Intelligence, 2021, , 435-449.	0.3	4
121	From multiple aspect trajectories to predictive analysis: a case study on fishing vessels in the Northern Adriatic sea. GeoInformatica, 2022, 26, 551-579.	2.7	4
122	deepSimDEF: deep neural embeddings of gene products and gene ontology terms for functional analysis of genes. Bioinformatics, 2022, 38, 3051-3061.	4.1	4
123	Privacy Compliance Enforcement in Email. Lecture Notes in Computer Science, 2005, , 194-204.	1.3	3
124	Meta-learning for large scale machine learning with MapReduce. , 2013, , .		3
125	Efficient Private Information Retrieval for Geographical Aggregation. Procedia Computer Science, 2014, 37, 497-502.	2.0	3
126	Using Classification in the Preprocessing Step on Wi-Fi Data as an Enabler of Physical Analytics. , 2016, , .		3

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127	Predicting annual average daily highway traffic from large data and very few measurements. , 2016, , .		3
128	Manifold Learning of Overcomplete Feature Spaces in a Multimodal Biometric Recognition System of Iris and Palmprint. , 2017, , .		3
129	Generating High-Fidelity Images with Disentangled Adversarial VAEs and Structure-Aware Loss. , 2020, , .		3
130	How to Prevent Private Data from being Disclosed to a Malicious Attacker. Studies in Computational Intelligence, 2008, , 517-528.	0.9	3
131	Improving Co-training with Agreement-Based Sampling. Lecture Notes in Computer Science, 2010, , 197-206.	1.3	3
132	Planning and learning in a natural resource information system. Lecture Notes in Computer Science, 1996, , 187-199.	1.3	3
133	Proper Model Selection with Significance Test. Lecture Notes in Computer Science, 2008, , 536-547.	1.3	3
134	Understanding evolution of maritime networks from automatic identification system data. GeoInformatica, 2022, 26, 479-503.	2.7	3
135	Developing an advanced information system to support ballast water management. Management of Biological Invasions, 2022, 13, 68-80.	1.2	3
136	Privacy-Oriented Collaborative Learning Systems. , 2006, , .		2
137	Automatic Target Recognition using multiple-aspect sonar images. , 2014, , .		2
138	A Density-Penalized Distance Measure for Clustering. Lecture Notes in Computer Science, 2015, , 238-249.	1.3	2
139	An Encryption Methodology for Enabling the Use of Data Warehouses on the Cloud. International Journal of Data Warehousing and Mining, 2018, 14, 38-66.	0.6	2
140	Computational modelling and data-driven techniques for systems analysis. Journal of Intelligent Information Systems, 2019, 52, 473-475.	3.9	2
141	Cluster Summarization with Dense Region Detection. Communications in Computer and Information Science, 2015, , 68-83.	0.5	2
142	Data Privacy: From Technology to Economics. Studies in Computational Intelligence, 2010, , 43-74.	0.9	2
143	Smooth Receiver Operating Characteristics (smROC) Curves. Lecture Notes in Computer Science, 2011, , 193-208.	1.3	2
144	Improvements to Boosting with Data Streams. Lecture Notes in Computer Science, 2013, , 248-255.	1.3	2

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145	CB-DBSCAN: A Novel Clustering Algorithm for Adjacent Clusters with Different Densities. Lecture Notes in Computer Science, 2020, , 232-237.	1.3	2
146	Copying of dynamic structures in a pascal environment. Software - Practice and Experience, 1986, 16, 335-340.	3.6	1
147	Knowledge acquisition by incremental learning from problem-solution pairs. Computational Intelligence, 1989, 5, 58-66.	3.2	1
148	Annotation concept synthesis and enrichment analysis: a logic-based approach to the interpretation of high-throughput experiments. Bioinformatics, 2011, 27, 2391-2398.	4.1	1
149	Improving multi-view semi-supervised learning with agreement-based sampling. Intelligent Data Analysis, 2012, 16, 745-761.	0.9	1
150	Traffic classification with on-line ensemble method. , 2014, , .		1
151	A multi-view two-level classification method for generalized multi-instance problems. , 2014, , .		1
152	Nonlinear Dimensionality Reduction by Unit Ball Embedding (UBE) and Its Application to Image Clustering. , 2016, , .		1
153	Mining The Saudi Twittersphere for Expressive Support Towards Women. , 2020, , .		1
154	Using Secondary Knowledge to Support Decision Tree Classification of Retrospective Clinical Data. , 2007, , 238-251.		1
155	Active Learning with Automatic Soft Labeling for Induction of Decision Trees. Lecture Notes in Computer Science, 2009, , 241-244.	1.3	1
156	Arbitrary Shape Cluster Summarization with Gaussian Mixture Model. , 2014, , .		1
157	Modeling Relevance Relations Using Machine Learning Techniques. , 2007, , 168-207.		1
158	Big Water Meets Big Data: Analytics of the AIS Ship Tracking Data. , 0, , .		1
159	A Concept-Based Framework for Retrieving Evidence to Support Emergency Physician Decision Making at the Point of Care. , 2007, , 117-126.		1
160	GENEX: a tool for testing in ILP. Software - Practice and Experience, 2001, 31, 1003-1023.	3.6	0
161	Incremental Cluster Updating Using Gaussian Mixture Model. Lecture Notes in Computer Science, 2015, , 264-272.	1.3	0
162	Special issue on discovery science. Machine Learning, 2017, 106, 741-743.	5.4	0

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163	Dimensionality Reduction and Visualization by Doubly Kernelized Unit Ball Embedding. Lecture Notes in Computer Science, 2018, , 224-230.	1.3	0
164	An Encryption Methodology for Enabling the Use of Data Warehouses on the Cloud. , 2021, , 528-559.		0
165	A modularized framework for explaining hierarchical attention networks on text classifiers. , 0, , .		0
166	Representation and analysis of spatiotemporal encounters published in online social networks. Social Network Analysis and Mining, 2021, 11, 1.	2.8	0
167	Annotation Concept Synthesis and Enrichment Analysis. Lecture Notes in Computer Science, 2010, , 304-308.	1.3	0
168	Improving Bayesian Learning Using Public Knowledge. Lecture Notes in Computer Science, 2010, , 348-351.	1.3	0
169	Predicate invention from a few examples. Lecture Notes in Computer Science, 1998, , 455-466.	1.3	0
170	MUSETS: Diversity-Aware Web Query Suggestions for Shortening User Sessions. Lecture Notes in Computer Science, 2015, , 237-247.	1.3	0
171	Privacy-Related Aspects and Techniques. , 2017, , 1006-1013.		0
172	Deep Multi-cultural Graph Representation Learning. Lecture Notes in Computer Science, 2017, , 407-410.	1.3	0
173	Reflexive Regular Equivalence for Bipartite Data. Lecture Notes in Computer Science, 2017, , 71-77.	1.3	0
174	Generation of Globally Relevant Continuous Features for Classification. , 2008, , 196-208.		0