

Robi Polikar

List of Publications by Year in descending order

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114
papers

7,129
citations

270111

25
h-index

198040

52
g-index

123
all docs

123
docs citations

123
times ranked

7183
citing authors

#	ARTICLE	IF	CITATIONS
1	Incremental and Semi-Supervised Learning of 16S-rRNA Genes For Taxonomic Classification. , 2021, , .		3
2	Machine Learning Analysis of Digital Clock Drawing Test Performance for Differential Classification of Mild Cognitive Impairment Subtypes Versus Alzheimer's Disease. Journal of the International Neuropsychological Society, 2020, 26, 690-700.	1.2	42
3	A Sequential Learning Approach for Scaling Up Filter-Based Feature Subset Selection. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 2530-2544.	7.2	18
4	Extensions to Online Feature Selection Using Bagging and Boosting. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 4504-4509.	7.2	24
5	Resampling Techniques for Learning Under Extreme Verification Latency with Class Imbalance. , 2018, , .		2
6	Big Data and Situation-Aware Technology for Smarter Healthcare. Journal of Medical and Biological Engineering, 2018, 38, 845-846.	1.0	2
7	Adding adaptive intelligence to sensor systems with MASS. , 2017, , .		7
8	LEVEL<inf>IW</inf>: Learning extreme verification latency with importance weighting. , 2017, , .		6
9	Learning under extreme verification latency quickly: FAST COMPOSE. , 2016, , .		13
10	Design and Performance Evaluation of a Biometric Iris Verification System. , 2015, , 26.458.1.		1
11	Constrained state estimation in particle filters. , 2015, , .		6
12	A Bootstrap Based Neyman-Pearson Test for Identifying Variable Importance. IEEE Transactions on Neural Networks and Learning Systems, 2015, 26, 880-886.	7.2	24
13	Quantifying the limited and gradual concept drift assumption. , 2015, , .		10
14	Inductive learning based on rough set theory for medical decision making. , 2015, , .		6
15	Learning in Nonstationary Environments: A Survey. IEEE Computational Intelligence Magazine, 2015, 10, 12-25.	3.4	519
16	Identifying amyloid pathology-related cerebrospinal fluid biomarkers for Alzheimer's disease in a multicohort study. Alzheimer's and Dementia: Diagnosis, Assessment and Disease Monitoring, 2015, 1, 339-348.	1.2	35
17	P50: A candidate ERP biomarker of prodromal Alzheimer's disease. Brain Research, 2015, 1624, 390-397.	1.1	20
18	Multi-Layer and Recursive Neural Networks for Metagenomic Classification. IEEE Transactions on Nanobioscience, 2015, 14, 608-616.	2.2	78

#	ARTICLE	IF	CITATIONS
19	Vertical Integration of Biometrics Across the Curriculum: Case Study of Speaker, Face and Iris Recognition. IEEE Circuits and Systems Magazine, 2014, 14, 55-69.	2.6	3
20	Scaling a neyman-pearson subset selection approach via heuristics for mining massive data. , 2014, , .		1
21	Optimal Bayesian classification in nonstationary streaming environments. , 2014, , .		0
22	Core support extraction for learning from initially labeled nonstationary environments using COMPOSE. , 2014, , .		10
23	Domain adaptation bounds for multiple expert systems under concept drift. , 2014, , .		11
24	Diagnostic utility of EEG based biomarkers for Alzheimer's disease. , 2014, , .		3
25	Guest Editorial Learning in Nonstationary and Evolving Environments. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 9-11.	7.2	16
26	COMPOSE: A Semisupervised Learning Framework for Initially Labeled Nonstationary Streaming Data. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 12-26.	7.2	114
27	Incremental Learning of Concept Drift from Streaming Imbalanced Data. IEEE Transactions on Knowledge and Data Engineering, 2013, 25, 2283-2301.	4.0	278
28	Hemodynamic Response to Repeated Noxious Cold Pressor Tests Measured by Functional Near Infrared Spectroscopy on Forehead. Annals of Biomedical Engineering, 2013, 41, 223-237.	1.3	31
29	Active learning in nonstationary environments. , 2013, , .		7
30	A freshman level module in biometric systems. , 2013, , .		3
31	Discounted expert weighting for concept drift. , 2013, , .		8
32	Incremental learning of new classes from unbalanced data. , 2013, , .		7
33	Information theoretic feature selection for high dimensional metagenomic data. , 2012, , .		7
34	Forensic identification with environmental samples. , 2012, , .		5
35	Open-ended design and performance evaluation of a biometric speaker identification system. , 2012, , .		2
36	Determining significance in metagenomic samples. , 2012, , .		0

#	ARTICLE	IF	CITATIONS
37	Transductive learning algorithms for nonstationary environments. , 2012, , .		5
38	Semi-supervised learning in initially labeled non-stationary environments with gradual drift. , 2012, , .		15
39	Ensemble Learning. , 2012, , 1-34.		324
40	Learning from streaming data with concept drift and imbalance: an overview. Progress in Artificial Intelligence, 2012, 1, 89-101.	1.5	199
41	Heuristic Updatable Weighted Random Subspaces for Non-stationary Environments. , 2011, , .		28
42	Hellinger distance based drift detection for nonstationary environments. , 2011, , .		79
43	Incremental Learning of Concept Drift in Nonstationary Environments. IEEE Transactions on Neural Networks, 2011, 22, 1517-1531.	4.8	676
44	Preface to the Handling Concept Drift and Reoccurring Contexts in Adaptive Information Systems Workshop. , 2011, , .		0
45	Information-theoretic approaches to SVM feature selection for metagenome read classification. Computational Biology and Chemistry, 2011, 35, 199-209.	1.1	19
46	Semi-supervised learning in nonstationary environments. , 2011, , .		32
47	Analysis of complexity based EEG features for the diagnosis of Alzheimer's disease. , 2011, 2011, 2033-6.		35
48	Ordering samples along environmental gradients using particle swarm optimization. , 2011, 2011, 4382-5.		1
49	Discovering the Unknown: Improving Detection of Novel Species and Genera from Short Reads. Journal of Biomedicine and Biotechnology, 2011, 2011, 1-11.	3.0	11
50	Editorial: One Year as EiC, and Editorial-Board Changes at TNN. IEEE Transactions on Neural Networks, 2011, 22, 1-7.	4.8	5
51	Learn++.MF: A random subspace approach for the missing feature problem. Pattern Recognition, 2010, 43, 3817-3832.	5.1	66
52	Optimal v-SVM parameter estimation using multi objective evolutionary algorithms. , 2010, , .		4
53	Multimodal EEG, MRI and PET data fusion for Alzheimer's disease diagnosis. , 2010, 2010, 6058-61.		39
54	Neural network-based taxonomic clustering for metagenomics. , 2010, , .		4

#	ARTICLE	IF	CITATIONS
55	An ensemble based incremental learning framework for concept drift and class imbalance. , 2010, , .		31
56	An Incremental Learning Algorithm for Non-stationary Environments and Class Imbalance. , 2010, , .		30
57	Fusion methods for boosting performance of speaker identification systems. , 2010, , .		2
58	Incremental Learning of New Classes in Unbalanced Datasets: Learn $\hat{\epsilon}_o + \hat{\alpha}\epsilon_o$.UDNC. Lecture Notes in Computer Science, 2010, , 33-42.	1.0	19
59	ERP based decision fusion for AD diagnosis across cohorts. , 2009, 2009, 2494-7.		6
60	Combining multichannel ERP data for early diagnosis of Alzheimer's Disease. , 2009, , .		2
61	Incremental learning in nonstationary environments with controlled forgetting. , 2009, , .		43
62	Model comparison for automatic characterization and classification of average ERPs using visual oddball paradigm. Clinical Neurophysiology, 2009, 120, 264-274.	0.7	11
63	Incremental Learning of Variable Rate Concept Drift. Lecture Notes in Computer Science, 2009, , 142-151.	1.0	25
64	Learn $\hat{\epsilon}^{++}$.NC: Combining Ensemble of Classifiers With Dynamically Weighted Consult-and-Vote for Efficient Incremental Learning of New Classes. IEEE Transactions on Neural Networks, 2009, 20, 152-168.	4.8	221
65	Signal Processing for Metagenomics: Extracting Information from the Soup. Current Genomics, 2009, 10, 493-510.	0.7	26
66	Functional Near-Infrared Spectroscopy and Electroencephalography: A Multimodal Imaging Approach. Lecture Notes in Computer Science, 2009, , 417-426.	1.0	7
67	An ensemble based data fusion approach for early diagnosis of Alzheimer $\hat{\epsilon}$'s disease. Information Fusion, 2008, 9, 83-95.	11.7	62
68	Incremental learning in non-stationary environments with concept drift using a multiple classifier based approach. , 2008, , .		19
69	Local Classifier Weighting by Quadratic Programming. IEEE Transactions on Neural Networks, 2008, 19, 1832-1838.	4.8	34
70	Learning concept drift in nonstationary environments using an ensemble of classifiers based approach. , 2008, , .		23
71	Nearest hyperdisk methods for high-dimensional classification. , 2008, , .		27
72	EEG and MRI data fusion for early diagnosis of Alzheimer's disease. , 2008, 2008, 1757-60.		13

#	ARTICLE	IF	CITATIONS
73	Margin-based discriminant dimensionality reduction for visual recognition. , 2008, , .		9
74	Metagenome Fragment Classification Using -Mer Frequency Profiles. Advances in Bioinformatics, 2008, 2008, 1-12.	5.7	85
75	Random Feature Subset Selection for Analysis of Data with Missing Features. Neural Networks (IJCNN), International Joint Conference on, 2007, , .	0.0	2
76	Multiple Classifiers Based Incremental Learning Algorithm for Learning in Nonstationary Environments. , 2007, , .		19
77	Ensemble Based Data Fusion from Parietal Region Event Related Potentials for Early Diagnosis of Alzheimer's Disease. Neural Networks (IJCNN), International Joint Conference on, 2007, , .	0.0	1
78	An Ensemble-Based Incremental Learning Approach to Data Fusion. IEEE Transactions on Systems, Man, and Cybernetics, 2007, 37, 437-450.	5.5	92
79	Bootstrap - Inspired Techniques in Computation Intelligence. IEEE Signal Processing Magazine, 2007, 24, 59-72.	4.6	106
80	Comparative multiresolution wavelet analysis of ERP spectral bands using an ensemble of classifiers approach for early diagnosis of Alzheimer's disease. Computers in Biology and Medicine, 2007, 37, 542-558.	3.9	67
81	Random Feature Subset Selection for Ensemble Based Classification of Data with Missing Features. , 2007, , 251-260.		6
82	An Ensemble Approach for Incremental Learning in Nonstationary Environments. , 2007, , 490-500.		37
83	Comparison of Ensemble Techniques for Incremental Learning of New Concept Classes under Hostile Non-stationary Environments. , 2006, , .		3
84	Laboratory Integration of Emerging Topics into Existing Curriculum. , 2006, , .		1
85	Ensemble based systems in decision making. IEEE Circuits and Systems Magazine, 2006, 6, 21-45.	2.6	2,117
86	Stacked Generalization for Early Diagnosis of Alzheimer's Disease. , 2006, 2006, 5350-3.		4
87	A combined pattern separability and two-tiered classification approach for identification of binary mixtures of VOCs. Sensors and Actuators B: Chemical, 2006, 116, 174-182.	4.0	7
88	Can AdaBoost.M1 Learn Incrementally? A Comparison to Learn+ Under Different Combination Rules. Lecture Notes in Computer Science, 2006, , 254-263.	1.0	7
89	Stacked Generalization for Early Diagnosis of Alzheimer's Disease. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
90	An Architecture for Intelligent Systems Based on Smart Sensors. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 1612-1616.	2.4	73

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91	Boosting Based Classification of Event Related Potentials for Early Diagnosis of Alzheimer's Disease. , 2005, 2005, 2494-7.		5
92	Ensemble Based Data Fusion for Early Diagnosis of Alzheimer's Disease. , 2005, 2005, 2479-82.		9
93	A multiple classifier approach for multisensor data fusion. , 2005, , .		2
94	Ensemble of SVMs for Incremental Learning. Lecture Notes in Computer Science, 2005, , 246-256.	1.0	29
95	Ensemble Confidence Estimates Posterior Probability. Lecture Notes in Computer Science, 2005, , 326-335.	1.0	17
96	Multiresolution analysis for early diagnosis of Alzheimer's disease. , 2004, 2006, 251-4.		12
97	An incremental learning algorithm with confidence estimation for automated identification of NDE signals. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2004, 51, 990-1001.	1.7	32
98	Learn++.MT: A New Approach to Incremental Learning. Lecture Notes in Computer Science, 2004, , 52-61.	1.0	30
99	Undergraduate Education in Pollution Prevention. , 2003, , 1.		0
100	An Ensemble Approach for Data Fusion with Learn++. Lecture Notes in Computer Science, 2003, , 176-185.	1.0	11
101	Confidence Estimation Using the Incremental Learning Algorithm, Learn++. Lecture Notes in Computer Science, 2003, , 181-188.	1.0	3
102	Dynamic thresholding for automated analysis of bobbin probe eddy current data. International Journal of Applied Electromagnetics and Mechanics, 2002, 15, 39-46.	0.3	1
103	Incremental learning of NDE signals with confidence estimation. AIP Conference Proceedings, 2002, , .	0.3	1
104	A generalized likelihood ratio technique for automated analysis of bobbin coil eddy current data. NDT and E International, 2002, 35, 329-336.	1.7	8
105	Learn++: an incremental learning algorithm for supervised neural networks. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2001, 31, 497-508.	3.3	663
106	Artificial intelligence methods for selection of an optimized sensor array for identification of volatile organic compounds. Sensors and Actuators B: Chemical, 2001, 80, 243-254.	4.0	50
107	Frequency invariant classification of ultrasonic weld inspection signals. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 1998, 45, 614-625.	1.7	74
108	Isolated vowel recognition using linear predictive features and neural network classifier fusion. , 0, , .		6

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109	Incremental learning from unbalanced data. , 0, , .		15
110	Ensemble of classifiers approach for NDT data fusion. , 0, , .		2
111	Combining classifiers for multisensor data fusion. , 0, , .		4
112	Dynamically weighted majority voting for incremental learning and comparison of three boosting based approaches. , 0, , .		13
113	Ensemble of support vector machines classifiers with learn++ algorithm. , 0, , .		0
114	Multiresolution Wavelet Analysis and Ensemble of Classifiers for Early Diagnosis of Alzheimer's Disease. , 0, , .		7