

# Mohamed Medhat Gaber

## List of Publications by Year in descending order

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Version: 2024-02-01

137  
papers

4,617  
citations

218381

26  
h-index

128067

60  
g-index

162  
all docs

162  
docs citations

162  
times ranked

4129  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mining data streams. SIGMOD Record, 2005, 34, 18-26.	0.7	750
2	Classification of COVID-19 in chest X-ray images using DeTraC deep convolutional neural network. Applied Intelligence, 2021, 51, 854-864.	3.3	615
3	Imitation Learning. ACM Computing Surveys, 2018, 50, 1-35.	16.1	477
4	Random forests: from early developments to recent advancements. Systems Science and Control Engineering, 2014, 2, 602-609.	1.8	369
5	Adaptive mobile activity recognition system with evolving data streams. Neurocomputing, 2015, 150, 304-317.	3.5	86
6	DeTrac: Transfer Learning of Class Decomposed Medical Images in Convolutional Neural Networks. IEEE Access, 2020, 8, 74901-74913.	2.6	79
7	Next challenges for adaptive learning systems. SIGKDD Explorations: Newsletter of the Special Interest Group (SIG) on Knowledge Discovery & Data Mining, 2012, 14, 48-55.	3.2	67
8	Advances in data stream mining. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2012, 2, 79-85.	4.6	66
9	Edge Machine Learning: Enabling Smart Internet of Things Applications. Big Data and Cognitive Computing, 2018, 2, 26.	2.9	65
10	A rule dynamics approach to event detection in Twitter with its application to sports and politics. Expert Systems With Applications, 2016, 55, 351-360.	4.4	64
11	Activity Recognition with Evolving Data Streams. ACM Computing Surveys, 2019, 51, 1-36.	16.1	64
12	A Survey of Classification Methods in Data Streams. , 2007, , 39-59.		62
13	A genetic algorithm approach to optimising random forests applied to class engineered data. Information Sciences, 2017, 384, 220-234.	4.0	56
14	Mining Recurring Concepts in a Dynamic Feature Space. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 95-110.	7.2	50
15	An efficient Self-Organizing Active Contour model for image segmentation. Neurocomputing, 2015, 149, 820-835.	3.5	47
16	AnyNovel: detection of novel concepts in evolving data streams. Evolving Systems, 2016, 7, 73-93.	2.4	42
17	CHIRPS: Explaining random forest classification. Artificial Intelligence Review, 2020, 53, 5747-5788.	9.7	40
18	MARS: A Personalised Mobile Activity Recognition System. , 2012, , .		38

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19	4S-DT: Self-Supervised Super Sample Decomposition for Transfer Learning With Application to COVID-19 Detection. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 2798-2808.	7.2	37
20	Density-Based Projected Clustering of Data Streams. Lecture Notes in Computer Science, 2012, , 311-324.	1.0	35
21	RedEdge: A Novel Architecture for Big Data Processing in Mobile Edge Computing Environments. Journal of Sensor and Actuator Networks, 2017, 6, 17.	2.3	35
22	MCUa: Multi-Level Context and Uncertainty Aware Dynamic Deep Ensemble for Breast Cancer Histology Image Classification. IEEE Transactions on Biomedical Engineering, 2022, 69, 818-829.	2.5	35
23	A framework for resource-aware knowledge discovery in data streams. , 2006, , .		32
24	DETECTION AND CLASSIFICATION OF CHANGES IN EVOLVING DATA STREAMS. International Journal of Information Technology and Decision Making, 2006, 05, 659-670.	2.3	32
25	Data stream mining in ubiquitous environments: state-of-the-art and current directions. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2014, 4, 116-138.	4.6	32
26	Deep imitation learning for 3D navigation tasks. Neural Computing and Applications, 2018, 29, 389-404.	3.2	32
27	Resource-aware Online Data Mining in Wireless Sensor Networks. , 2007, , .		30
28	A Holistic Approach for Resource-aware Adaptive Data Stream Mining. New Generation Computing, 2006, 25, 95-115.	2.5	29
29	On-board Mining of Data Streams in Sensor Networks. , 2005, , 307-335.		27
30	Energy conservation in wireless sensor networks: a rule-based approach. Knowledge and Information Systems, 2011, 28, 579-614.	2.1	27
31	StreamAR: Incremental and Active Learning with Evolving Sensory Data for Activity Recognition. , 2012, , .		27
32	Pocket Data Mining: Towards Collaborative Data Mining in Mobile Computing Environments. , 2010, , .		26
33	A fine-grained Random Forests using class decomposition: an application to medical diagnosis. Neural Computing and Applications, 2016, 27, 2279-2288.	3.2	26
34	EACD: evolutionary adaptation to concept drifts in data streams. Data Mining and Knowledge Discovery, 2019, 33, 663-694.	2.4	26
35	Data Stream Mining. , 2009, , 759-787.		25
36	Open Mobile Miner: A Toolkit for Building Situation-Aware Data Mining Applications. Journal of Organizational Computing and Electronic Commerce, 2013, 23, 224-248.	1.0	25

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37	Internet of Things and data mining: From applications to techniques and systems. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2019, 9, e1292.	4.6	25
38	OntoPeFeGe: Ontology-Based Personalized Feedback Generator. IEEE Access, 2018, 6, 31644-31664.	2.6	23
39	Clustering Distributed Time Series in Sensor Networks. , 2008, , .		22
40	Pocket Data Mining. Studies in Big Data, 2014, , .	0.8	22
41	3E-Net: Entropy-Based Elastic Ensemble of Deep Convolutional Neural Networks for Grading of Invasive Breast Carcinoma Histopathological Microscopic Images. Entropy, 2021, 23, 620.	1.1	21
42	Towards an Adaptive Approach for Mining Data Streams in Resource Constrained Environments. Lecture Notes in Computer Science, 2004, , 189-198.	1.0	20
43	Mobile Data Stream Mining: From Algorithms to Applications. , 2012, , .		20
44	Embed2Detect: temporally clustered embedded words for event detection in social media. Machine Learning, 2022, 111, 49-87.	3.4	20
45	TRCM: A Methodology for Temporal Analysis of Evolving Concepts in Twitter. Lecture Notes in Computer Science, 2013, , 135-145.	1.0	20
46	Change detection in streaming data in the era of big data. SIGKDD Explorations: Newsletter of the Special Interest Group (SIG) on Knowledge Discovery & Data Mining, 2014, 16, 30-38.	3.2	19
47	On expressiveness and uncertainty awareness in rule-based classification for data streams. Neurocomputing, 2017, 265, 127-141.	3.5	19
48	A SOM-based Chanâ€“Vese model for unsupervised image segmentation. Soft Computing, 2017, 21, 2047-2067.	2.1	18
49	An Information-Theoretic Approach for Setting the Optimal Number of Decision Trees in Random Forests. , 2013, , .		17
50	A non-canonical hybrid metaheuristic approach to adaptive data stream classification. Future Generation Computer Systems, 2020, 102, 127-139.	4.9	17
51	Computationally Efficient Rule-Based Classification for Continuous Streaming Data. , 2014, , 21-34.		17
52	Context-aware adaptive data stream mining. Intelligent Data Analysis, 2009, 13, 423-434.	0.4	16
53	Leap2Trend: A Temporal Word Embedding Approach for Instant Detection of Emerging Scientific Trends. IEEE Access, 2019, 7, 176414-176428.	2.6	16
54	Knowledge discovery from data streams. Intelligent Data Analysis, 2009, 13, 403-404.	0.4	15

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55	Data Stream Mining Using Granularity-Based Approach. <i>Studies in Computational Intelligence</i> , 2009, , 47-66.	0.7	15
56	Resource-efficient fast prediction in healthcare data analytics: A pruned Random Forest regression approach. <i>Computing (Vienna/New York)</i> , 2020, 102, 1187-1198.	3.2	15
57	Data Stream Processing in Sensor Networks. , 2007, , 41-48.		15
58	GARF: Towards Self-optimised Random Forests. <i>Lecture Notes in Computer Science</i> , 2012, , 506-515.	1.0	15
59	An innovative framework for supporting big atmospheric data analytics via clustering-based spatio-temporal analysis. <i>Journal of Ambient Intelligence and Humanized Computing</i> , 2019, 10, 3383-3398.	3.3	14
60	Corona: Energy-Efficient Multi-query Processing in Wireless Sensor Networks. <i>Lecture Notes in Computer Science</i> , 2010, , 416-419.	1.0	14
61	RA-SAX: Resource-Aware Symbolic Aggregate Approximation for Mobile ECG Analysis. , 2011, , .		13
62	Deep reward shaping from demonstrations. , 2017, , .		13
63	Predicting the Economic Impact of the COVID-19 Pandemic in the United Kingdom Using Time-Series Mining. <i>Economies</i> , 2021, 9, 137.	1.2	13
64	Expressive modeling for trusted big data analytics: techniques and applications in sentiment analysis. <i>Big Data Analytics</i> , 2017, 2, .	2.2	12
65	An overview of interactive visual data mining techniques for knowledge discovery. <i>Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery</i> , 2013, 3, 239-256.	4.6	11
66	Adaptive One-Class Ensemble-based Anomaly Detection: An Application to Insider Threats. , 2018, , .		11
67	A Graph-Based Approach to Interpreting Recurrent Neural Networks in Process Mining. <i>IEEE Access</i> , 2020, 8, 172923-172938.	2.6	11
68	A Concurrent SOM-Based Chan-Vese Model for Image Segmentation. <i>Advances in Intelligent Systems and Computing</i> , 2014, , 199-208.	0.5	11
69	A Time-Series Self-Supervised Learning Approach to Detection of Cyber-physical Attacks in Water Distribution Systems. <i>Energies</i> , 2022, 15, 914.	1.6	11
70	On the Relationship between Variational Level Set-Based and SOM-Based Active Contours. <i>Computational Intelligence and Neuroscience</i> , 2015, 2015, 1-19.	1.1	10
71	A fuzzy approach for interpretation of ubiquitous data stream clustering and its application in road safety. <i>Intelligent Data Analysis</i> , 2007, 11, 89-108.	0.4	9
72	Homogeneous and Heterogeneous Distributed Classification for Pocket Data Mining. <i>Lecture Notes in Computer Science</i> , 2012, , 183-205.	1.0	9

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73	Interactive self-adaptive clutter-aware visualisation for mobile data mining. Journal of Computer and System Sciences, 2013, 79, 369-382.	0.9	9
74	Energy-Aware Data Processing Techniques for Wireless Sensor Networks: A Review. Lecture Notes in Computer Science, 2011, , 117-137.	1.0	9
75	Adaptive Clutter-Aware Visualization for Mobile Data Stream Mining. , 2010, , .		8
76	A Survey of SOM-Based Active Contour Models for Image Segmentation. Advances in Intelligent Systems and Computing, 2014, , 293-302.	0.5	8
77	Evaluating the quality of the ontology-based auto-generated questions. Smart Learning Environments, 2017, 4, .	4.3	8
78	Scholarly data mining: A systematic review of its applications. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2021, 11, e1395.	4.6	8
79	Efficient Time Triggered Query Processing in Wireless Sensor Networks. Lecture Notes in Computer Science, 2007, , 391-402.	1.0	8
80	An analytical study of central and in-network data processing for wireless sensor networks. Information Processing Letters, 2009, 110, 62-70.	0.4	7
81	KB-CB-N classification: Towards unsupervised approach for supervised learning. , 2011, , .		7
82	Resource-aware ECG analysis on mobile devices. , 2011, , .		7
83	Scaling up Data Mining Techniques to Large Datasets Using Parallel and Distributed Processing. Advanced Information and Knowledge Processing, 2013, , 243-259.	0.2	7
84	Clutter-Adaptive Visualization for Mobile Data Mining. , 2010, , .		6
85	Context-Aware Collaborative Data Stream Mining in Ubiquitous Devices. Lecture Notes in Computer Science, 2011, , 22-33.	1.0	6
86	eGAP: An Evolutionary Game Theoretic Approach to Random Forest Pruning. Big Data and Cognitive Computing, 2020, 4, 37.	2.9	6
87	Situation-Aware Adaptive Visualization for Sensory Data Stream Mining. Lecture Notes in Computer Science, 2010, , 43-58.	1.0	6
88	Distributed data stream classification for wireless sensor networks. , 2010, , .		5
89	Advances in data stream mining for mobile and ubiquitous environments. , 2011, , .		5
90	An entropy-based approach to enhancing Random Forests. Intelligent Decision Technologies, 2013, 7, 319-327.	0.6	5

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91	Adaptive data stream mining for wireless sensor networks. , 2014, , .		5
92	RED-GENE: An Evolutionary Game Theoretic Approach to Adaptive Data Stream Classification. IEEE Access, 2019, 7, 173944-173954.	2.6	5
93	Diversified Random Forests Using Random Subspaces. Lecture Notes in Computer Science, 2014, , 85-92.	1.0	5
94	Making Sense of Ubiquitous Data Streams â€“ A Fuzzy Logic Approach. Lecture Notes in Computer Science, 2005, , 922-928.	1.0	5
95	Ensemble Dynamics in Non-stationary Data Stream Classification. Studies in Big Data, 2019, , 123-153.	0.8	5
96	DeepStreamOS: Fast open-Set classification for convolutional neural networks. Pattern Recognition Letters, 2022, 154, 75-82.	2.6	5
97	A Rule Learning Approach to Energy Efficient Clustering in Wireless Sensor Networks. , 2008, , .		4
98	Foundations of Adaptive Data Stream Mining for Mobile and Embedded Applications. , 2008, , .		4
99	COLLABORATIVE DATA STREAM MINING IN UBIQUITOUS ENVIRONMENTS USING DYNAMIC CLASSIFIER SELECTION. International Journal of Information Technology and Decision Making, 2013, 12, 1287-1308.	2.3	4
100	Extraction of Unexpected Rules from Twitter Hashtags and its Application to Sport Events. , 2014, , .		4
101	A Hybrid Agent-Based and Probabilistic Model for Fine-Grained Behavioural Energy Waste Simulation. , 2017, , .		4
102	A Non-Intrusive Heuristic for Energy Messaging Intervention Modeled Using a Novel Agent-Based Approach. IEEE Access, 2019, 7, 1627-1646.	2.6	4
103	Co-eye: a multi-resolution ensemble classifier for symbolically approximated time series. Machine Learning, 2020, 109, 2029-2061.	3.4	4
104	gbt-HIPS: Explaining the Classifications of Gradient Boosted Tree Ensembles. Applied Sciences (Switzerland), 2021, 11, 2511.	1.3	4
105	eRules: A Modular Adaptive Classification Rule Learning Algorithm for Data Streams. , 2012, , 65-78.		4
106	Knowledge discovery from sensor data (SensorKDD). SIGKDD Explorations: Newsletter of the Special Interest Group (SIG) on Knowledge Discovery & Data Mining, 2010, 11, 84-87.	3.2	3
107	Distributed hoeffding trees for pocket data mining. , 2011, , .		3
108	DeepHist: Towards a Deep Learning-based Computational History of Trends in the NIPS. , 2019, , .		3

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109	Data Stream Clustering for Real-Time Anomaly Detection: An Application to Insider Threats. Unsupervised and Semi-supervised Learning, 2019, , 115-144.	0.4	3
110	A Frequent Pattern Conjunction Heuristic for Rule Generation in Data Streams. Information (Switzerland), 2021, 12, 24.	1.7	3
111	Cascading Probability Distributions in Agent-Based Models: An Application to Behavioural Energy Wastage. Lecture Notes in Computer Science, 2018, , 489-503.	1.0	3
112	On the Integration of Data Stream Clustering into a Query Processor for Wireless Sensor Networks. , 2007, , .		2
113	ARTS: Adaptive Rule Triggers on Sensors for Energy Conservation in Applications using Coarse-Granularity Data. , 2008, , .		2
114	Knowledge discovery from sensor data (SensorKDD). SIGKDD Explorations: Newsletter of the Special Interest Group (SIG) on Knowledge Discovery & Data Mining, 2011, 12, 50-53.	3.2	2
115	Adopted Data Mining Methods. Studies in Big Data, 2014, , 31-42.	0.8	2
116	Spatio-temporal analysis of Greenhouse Gas data via clustering techniques. , 2015, , .		2
117	Clustering-Based Spatio-Temporal Analysis of Big Atmospheric Data. , 2016, , .		2
118	k-NN Embedding Stability for word2vec Hyper-Parametrisation in Scientific Text. Lecture Notes in Computer Science, 2018, , 328-343.	1.0	2
119	TONE. , 2019, , .		2
120	A Replicator Dynamics Approach to Collective Feature Engineering in Random Forests. , 2015, , 25-41.		2
121	Data Science and Distributed Intelligence: Recent Developments and Future Insights. Studies in Computational Intelligence, 2013, , 139-147.	0.7	2
122	Knowledge discovery from sensor data (SensorKDD). SIGKDD Explorations: Newsletter of the Special Interest Group (SIG) on Knowledge Discovery & Data Mining, 2008, 10, 68-73.	3.2	2
123	Astronomical Data Mining. Studies in Big Data, 2014, , 15-30.	0.8	2
124	Deploying Mobile Software Agents for Distributed Data Mining on Wireless Sensor Networks: A Comparative Analysis. , 2012, , .		1
125	Bigger data for big data: From Twitter to brainâ€“computer interfaces. Behavioral and Brain Sciences, 2014, 37, 97-98.	0.4	1
126	Distributed Classification of Data Streams: An Adaptive Technique. Lecture Notes in Computer Science, 2015, , 296-309.	1.0	1



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127	An Agent-Based Collective Model to Simulate Peer Pressure Effect on Energy Consumption. Lecture Notes in Computer Science, 2018, , 283-296.	1.0	1
128	Identifying Uncertain Galaxy Morphologies Using Unsupervised Learning. Lecture Notes in Computer Science, 2013, , 146-157.	1.0	1
129	TED-S: Twitter Event Data in Sports and Politics with Aggregated Sentiments. Data, 2022, 7, 90.	1.2	1
130	Predicting Hot-Spots in Distributed Cloud Databases Using Association Rule Mining. , 2014, , .		0
131	A Statistical Learning Method to Fast Generalised Rule Induction Directly from Raw Measurements. , 2016, , .		0
132	Conclusion and FutureWork. Studies in Big Data, 2014, , 89-93.	0.8	0
133	Implementation of Pocket Data Mining. Studies in Big Data, 2014, , 41-59.	0.8	0
134	Astronomy, Galaxies and Stars: An Overview. Studies in Big Data, 2014, , 5-14.	0.8	0
135	Data Science and Distributed Intelligence. , 2015, , 1732-1740.		0
136	Vec2Dynamics: A Temporal Word Embedding Approach to Exploring the Dynamics of Scientific Keywordsâ€”Machine Learning as a Case Study. Big Data and Cognitive Computing, 2022, 6, 21.	2.9	0
137	PGraphD*: Methods for Drift Detection and Localisation Using Deep Learning Modelling of Business Processes. Entropy, 2022, 24, 910.	1.1	0