Eamonn Keogh

List of Publications by Citations

165 papers	14,407 citations	57 h-index	119 g-index
174 ext. papers	17,892 ext. citations	3.3 avg, IF	6.83 L-index

#	Paper	IF	Citations
165	Exact indexing of dynamic time warping. *Knowledge and Information Systems*, **2005**, 7, 358-386	2.4	956
164	Experiencing SAX: a novel symbolic representation of time series. *Data Mining and Knowledge Discovery*, **2007**, 15, 107-144	5.6	870
163	Dimensionality Reduction for Fast Similarity Search in Large Time Series Databases. *Knowledge and Information Systems*, **2001**, 3, 263-286	2.4	755
162	Querying and mining of time series data. *Proceedings of the VLDB Endowment*, **2008**, 1, 1542-1552	3.1	700
161	A symbolic representation of time series, with implications for streaming algorithms **2003**,		552
160	The great time series classification bake off: a review and experimental evaluation of recent algorithmic advances. *Data Mining and Knowledge Discovery*, **2017**, 31, 606-660	5.6	468
159	On the Need for Time Series Data Mining Benchmarks: A Survey and Empirical Demonstration. *Data Mining and Knowledge Discovery*, **2003**, 7, 349-371	5.6	459
158	Experimental comparison of representation methods and distance measures for time series data. *Data Mining and Knowledge Discovery*, **2013**, 26, 275-309	5.6	458
157	Searching and Mining Trillions of Time Series Subsequences under Dynamic Time Warping. *KDD: Proceedings*, **2012**, 2012, 262-270	6.8	439
156	Time series shapelets **2009**,		392
155	Exact Indexing of Dynamic Time Warping **2002**, 406-417		342
154	A brief survey on sequence classification. *SIGKDD Explorations: Newsletter of the Special Interest Group (SIG) on Knowledge Discovery & Data Mining*, **2010**, 12, 40-48	4.6	306
153	Probabilistic discovery of time series motifs **2003**,		278
152	Towards parameter-free data mining **2004**,		275
151	Locally adaptive dimensionality reduction for indexing large time series databases **2001**,		261
150	Fast time series classification using numerosity reduction **2006**,		255
149	SEGMENTING TIME SERIES: A SURVEY AND NOVEL APPROACH. *Series in Machine Perception and Artificial Intelligence*, **2004**, 1-21	0.3	240

148	Locally adaptive dimensionality reduction for indexing large time series databases. *ACM Transactions on Database Systems*, **2002**, 27, 188-228	1.6	228
147	Exact Discovery of Time Series Motifs **2009**, 2009, 473-484	0.8	215
146	Clustering of time-series subsequences is meaningless: implications for previous and future research. *Knowledge and Information Systems*, **2005**, 8, 154-177	2.4	207
145	Locally adaptive dimensionality reduction for indexing large time series databases. *SIGMOD Record*, **2001**, 30, 151-162	1.1	204
144	Indexing multi-dimensional time-series with support for multiple distance measures **2003**,		197
143	On the need for time series data mining benchmarks **2002**,		195
142	Finding surprising patterns in a time series database in linear time and space **2002**,		179
141	iSAX **2008**,		174
140	Making Time-series Classification More Accurate Using Learned Constraints **2004**,		170
139	Three Myths about Dynamic Time Warping Data Mining **2005**,		167
138	Time series shapelets: a novel technique that allows accurate, interpretable and fast classification. *Data Mining and Knowledge Discovery*, **2011**, 22, 149-182	5.6	164
137	Matrix Profile I: All Pairs Similarity Joins for Time Series: A Unifying View That Includes Motifs, Discords and Shapelets **2016**,		156
136	The UCR time series archive. *IEEE/CAA Journal of Automatica Sinica*, **2019**, 6, 1293-1305	7	155
135	Fast Shapelets: A Scalable Algorithm for Discovering Time Series Shapelets **2013**,		149
134	Logical-shapelets **2011**,		141
133	Semi-supervised time series classification **2006**,		128
132	Scaling and time warping in time series querying. *VLDB Journal*, **2008**, 17, 899-921	3.9	100
131	iSAX 2.0: Indexing and Mining One Billion Time Series **2010**,		96

130	Iterative Deepening Dynamic Time Warping for Time Series **2002**,		96
129	Dynamic Time Warping Averaging of Time Series Allows Faster and More Accurate Classification **2014**,		95
128	Finding the most unusual time series subsequence: algorithms and applications. *Knowledge and Information Systems*, **2006**, 11, 1-27	2.4	92
127	Indexing Multidimensional Time-Series. *VLDB Journal*, **2006**, 15, 1-20	3.9	88
126	Indexing Large Human-Motion Databases **2004**, 780-791		84
125	Generalizing DTW to the multi-dimensional case requires an adaptive approach. *Data Mining and Knowledge Discovery*, **2017**, 31, 1-31	5.6	83
124	Clustering Time Series Using Unsupervised-Shapelets **2012**,		78
123	Supporting exact indexing of arbitrarily rotated shapes and periodic time series under Euclidean and warping distance measures. *VLDB Journal*, **2009**, 18, 611-630	3.9	78
122	Visually mining and monitoring massive time series **2004**,		75
121	Matrix Profile II: Exploiting a Novel Algorithm and GPUs to Break the One Hundred Million Barrier for Time Series Motifs and Joins **2016**,		73
120	Detecting time series motifs under uniform scaling **2007**,		71
119	Time-series Bitmaps: a Practical Visualization Tool for Working with Large Time Series Databases **2005**,		71
118	Visualizing and Discovering Non-Trivial Patterns in Large Time Series Databases. *Information Visualization*, **2005**, 4, 61-82	2.4	71
117	Faster and more accurate classification of time series by exploiting a novel dynamic time warping averaging algorithm. *Knowledge and Information Systems*, **2016**, 47, 1-26	2.4	69
116	Flying Insect Classification with Inexpensive Sensors. *Journal of Insect Behavior*, **2014**, 27, 657-677	1.1	69
115	Accelerating Dynamic Time Warping Subsequence Search with GPUs and FPGAs **2010**,		68
114	Beyond one billion time series: indexing and mining very large time series collections with (i)SAX2+. *Knowledge and Information Systems*, **2014**, 39, 123-151	2.4	63
113	Compression-based data mining of sequential data. *Data Mining and Knowledge Discovery*, **2007**, 14, 99-129	3.0	63

112	Online discovery and maintenance of time series motifs **2010**,		60
111	Disk aware discord discovery: finding unusual time series in terabyte sized datasets. *Knowledge and Information Systems*, **2008**, 17, 241-262	2.4	59
110	Time Series Classification under More Realistic Assumptions **2013**,		57
109	Addressing Big Data Time Series. *ACM Transactions on Knowledge Discovery From Data*, **2013**, 7, 1-31	4	57
108	Time series joins, motifs, discords and shapelets: a unifying view that exploits the matrix profile. *Data Mining and Knowledge Discovery*, **2018**, 32, 83-123	5.6	49
107	Anytime Classification Using the Nearest Neighbor Algorithm with Applications to Stream Mining. *IEEE International Conference on Data Mining*, **2006**,		48
106	DTW-D **2013**,		47
105	A Bit Level Representation for Time Series Data Mining with Shape Based Similarity. *Data Mining and Knowledge Discovery*, **2006**, 13, 11-40	5.6	47
104	A Novel Bit Level Time Series Representation with Implication of Similarity Search and Clustering. *Lecture Notes in Computer Science*, **2005**, 771-777	0.9	46
103	iSAX: disk-aware mining and indexing of massive time series datasets. *Data Mining and Knowledge Discovery*, **2009**, 19, 24-57	5.6	45
102	Addressing Big Data Time Series. *ACM Transactions on Knowledge Discovery From Data*, **2013**, 7, 1-31	4	43
101	Finding unusual medical time-series subsequences: algorithms and applications. *IEEE Transactions on Information Technology in Biomedicine*, **2006**, 10, 429-39		43
100	WAT: Finding Top-K Discords in Time Series Database **2007**,		43
99	Streaming Time Series Summarization Using User-Defined Amnesic Functions. *IEEE Transactions on Knowledge and Data Engineering*, **2008**, 20, 992-1006	4.2	42
98	Discovery of Meaningful Rules in Time Series **2015**,		41
97	SAXually Explicit Images: Finding Unusual Shapes. *IEEE International Conference on Data Mining*, **2006**,		41
96	Reliable early classification of time series based on discriminating the classes over time. *Data Mining and Knowledge Discovery*, **2017**, 31, 233-263	5.6	38
95	Accelerating Dynamic Time Warping Clustering with a Novel Admissible Pruning Strategy **2015**,		37

94	Generating Synthetic Time Series to Augment Sparse Datasets **2017**,		37
93	Matrix Profile X **2018**,		36
92	Speeding up similarity search under dynamic time warping by pruning unpromising alignments. *Data Mining and Knowledge Discovery*, **2018**, 32, 988-1016	5.6	35
91	On the Non-Trivial Generalization of Dynamic Time Warping to the Multi-Dimensional Case **2015**,		35
90	Optimizing dynamic time warping's window width for time series data mining applications. *Data Mining and Knowledge Discovery*, **2018**, 32, 1074-1120	5.6	30
89	Finding Time Series Discords Based on Haar Transform. *Lecture Notes in Computer Science*, **2006**, 31-41	0.9	29
88	Rare time series motif discovery from unbounded streams. *Proceedings of the VLDB Endowment*, **2014**, 8, 149-160	3.1	28
87	Discovering the Intrinsic Cardinality and Dimensionality of Time Series Using MDL **2011**,		28
86	Disk Aware Discord Discovery: Finding Unusual Time Series in Terabyte Sized Datasets **2007**,		28
85	Mining Time Series Data **2005**, 1069-1103		27
84	Matrix Profile XI: SCRIMP++: Time Series Motif Discovery at Interactive Speeds **2018**,		26
83	An efficient and effective similarity measure to enable data mining of petroglyphs. *Data Mining and Knowledge Discovery*, **2011**, 23, 91-127	5.6	25
82	Mining Time Series Data **2009**, 1049-1077		25
81	Finding Time Series Motifs in Disk-Resident Data **2009**,		22
80	Matrix profile goes MAD: variable-length motif and discord discovery in data series. *Data Mining and Knowledge Discovery*, **2020**, 34, 1022-1071	5.6	19
79	Semi-Supervision Dramatically Improves Time Series Clustering under Dynamic Time Warping **2016**,		19
78	Scalable Clustering of Time Series with U-Shapelets **2015**,		19
77	Flying insect detection and classification with inexpensive sensors. *Journal of Visualized Experiments*, **2014**, e52111	1.6	18

76	Matrix Profile VIII: Domain Agnostic Online Semantic Segmentation at Superhuman Performance Levels **2017**,		18
75	A disk-aware algorithm for time series motif discovery. *Data Mining and Knowledge Discovery*, **2011**, 22, 73-105	5.6	18
74	Classification of Multi-dimensional Streaming Time Series by Weighting Each Classifier's Track Record **2013**,		17
73	Matrix Profile V **2017**,		17
72	. *IEEE International Conference on Data Mining*, **2006**,		17
71	A general framework for never-ending learning from time series streams. *Data Mining and Knowledge Discovery*, **2015**, 29, 1622-1664	5.6	16
70	Real-Time Classification of Streaming Sensor Data **2008**,		16
69	Super-Efficient Cross-Correlation (SEC-C): A Fast Matched Filtering Code Suitable for Desktop Computers. *Seismological Research Letters*, **2019**, 90, 322-334	3	15
68	Exploiting a novel algorithm and GPUs to break the ten quadrillion pairwise comparisons barrier for time series motifs and joins. *Knowledge and Information Systems*, **2018**, 54, 203-236	2.4	15
67	Augmenting the generalized hough transform to enable the mining of petroglyphs **2009**,		15
66	Classification of streaming time series under more realistic assumptions. *Data Mining and Knowledge Discovery*, **2016**, 30, 403-437	5.6	14
65	Towards a minimum description length based stopping criterion for semi-supervised time series classification **2013**,		14
64	Clustering of streaming time series is meaningless **2003**,		14
63	Domain agnostic online semantic segmentation for multi-dimensional time series. *Data Mining and Knowledge Discovery*, **2019**, 33, 96-130	5.6	14
62	Accelerating the discovery of unsupervised-shapelets. *Data Mining and Knowledge Discovery*, **2016**, 30, 243-281	5.6	13
61	Towards never-ending learning from time series streams **2013**,		13
60	Data Editing Techniques to Allow the Application of Distance-Based Outlier Detection to Streams **2010**,		13
59	Making Image Retrieval and Classification More Accurate Using Time Series and Learned Constraints **2009**, 145-170		13

58	VALMOD **2018**,		12
57	Matrix profile IV. *Proceedings of the VLDB Endowment*, **2017**, 10, 1802-1812	3.1	12
56	Matrix Profile XIV **2019**,		12
55	Matrix Profile XIII: Time Series Snippets: A New Primitive for Time Series Data Mining **2018**,		12
54	Using the minimum description length to discover the intrinsic cardinality and dimensionality of time series. *Data Mining and Knowledge Discovery*, **2015**, 29, 358-399	5.6	11
53	Matrix Profile VII: Time Series Chains: A New Primitive for Time Series Data Mining (Best Student Paper Award) **2017**,		11
52	Efficiently finding unusual shapes in large image databases. *Data Mining and Knowledge Discovery*, **2008**, 17, 343-376	5.6	11
51	Efficiently Finding Arbitrarily Scaled Patterns in Massive Time Series Databases. *Lecture Notes in Computer Science*, **2003**, 253-265	0.9	11
50	Matrix Profile III: The Matrix Profile Allows Visualization of Salient Subsequences in Massive Time Series **2016**,		11
49	Prefix and Suffix Invariant Dynamic Time Warping **2016**,		10
48	Group SAX: Extending the Notion of Contrast Sets to Time Series and Multimedia Data. *Lecture Notes in Computer Science*, **2006**, 284-296	0.9	10
47	Introducing time series chains: a new primitive for time series data mining. *Knowledge and Information Systems*, **2019**, 60, 1135-1161	2.4	9
46	Monitoring and Mining Animal Sounds in Visual Space. *Journal of Insect Behavior*, **2013**, 26, 466-493	1.1	9
45	A MPAA-Based Iterative Clustering Algorithm Augmented by Nearest Neighbors Search for Time-Series Data Streams. *Lecture Notes in Computer Science*, **2005**, 333-342	0.9	9
44	A Minimum Description Length Technique for Semi-Supervised Time Series Classification. *Advances in Intelligent Systems and Computing*, **2014**, 171-192	0.4	9
43	Matrix Profile XII: MPdist: A Novel Time Series Distance Measure to Allow Data Mining in More Challenging Scenarios **2018**,		9
42	**2017**,		8
41	Mother Fugger: Mining Historical Manuscripts with Local Color Patches **2010**,		8

40	. *IEEE Transactions on Multimedia*, **2008**, 10, 230-239	6.6	8
39	Locally Constrained Support Vector Clustering **2007**,		8
38	Efficient Discovery of Unusual Patterns in Time Series. *New Generation Computing*, **2006**, 25, 61-93	0.9	8
37	Classification of Live Moths Combining Texture, Color and Shape Primitives **2010**,		7
36	Converting non-parametric distance-based classification to anytime algorithms. *Pattern Analysis and Applications*, **2008**, 11, 321-336	2.3	7
35	Establishing the provenance of historical manuscripts with a novel distance measure. *Pattern Analysis and Applications*, **2015**, 18, 313-331	2.3	6
34	The Swiss army knife of time series data mining: ten useful things you can do with the matrix profile and ten lines of code. *Data Mining and Knowledge Discovery*, **2020**, 34, 949-979	5.6	6
33	Image Mining of Historical Manuscripts to Establish Provenance **2012**,		6
32	Efficient query filtering for streaming time series with applications to semisupervised learning of time series classifiers. *Knowledge and Information Systems*, **2007**, 11, 313-344	2.4	6
31	MERLIN: Parameter-Free Discovery of Arbitrary Length Anomalies in Massive Time Series Archives **2020**,		6
30	Putting the Human in the Time Series Analytics Loop **2019**,		5
29	Features or Shape? Tackling the False Dichotomy of Time Series Classification **2020**, 442-450		5
28	Parameter-Free Audio Motif Discovery in Large Data Archives **2013**,		5
27	Polishing the Right Apple: Anytime Classification Also Benefits Data Streams with Constant Arrival Times **2010**,		5
26	An ultra-fast time series distance measure to allow data mining in more complex real-world deployments. *Data Mining and Knowledge Discovery*, **2020**, 34, 1104-1135	5.6	4
25	Accelerating Time Series Searching with Large Uniform Scaling **2018**, 234-242		4
24	Mining Massive Archives of Mice Sounds with Symbolized Representations **2012**,		4
23	Matrix Profile XV: Exploiting Time Series Consensus Motifs to Find Structure in Time Series Sets **2019**,		4

22	Online Amnestic DTW to allow Real-Time Golden Batch Monitoring **2019**,		3
21	Instruction set extensions for Dynamic Time Warping **2013**,		3
20	Autocannibalistic and Anyspace Indexing Algorithms with Applications to Sensor Data Mining **2009**,		3
19	Clustering Workflow Requirements Using Compression Dissimilarity Measure **2006**,		3
18	Matrix Profile XXII: Exact Discovery of Time Series Motifs Under DTW **2020**,		3
17	Fitbit for Chickens? **2020**,		3
16	Compression-Based Data Mining **2009**, 278-285		3
15	Using CAPTCHAs to Index Cultural Artifacts. *Lecture Notes in Computer Science*, **2010**, 245-257	0.9	3
14	Matrix Profile XVI: Efficient and Effective Labeling of Massive Time Series Archives **2019**,		3
13	Matrix Profile XIX: Time Series Semantic Motifs: A New Primitive for Finding Higher-Level Structure in Time Series **2019**,		3
12	Matrix Profile IX: Admissible Time Series Motif Discovery With Missing Data. *IEEE Transactions on Knowledge and Data Engineering*, **2021**, 33, 2616-2626	4.2	3
11	Time series motifs discovery under DTW allows more robust discovery of conserved structure. *Data Mining and Knowledge Discovery*, **2021**, 35, 863-910	5.6	3
10	Searching Time Series with Invariance to Large Amounts of Uniform Scaling **2017**,		2
9	Introducing time series snippets: a new primitive for summarizing long time series. *Data Mining and Knowledge Discovery*, **2020**, 34, 1713-1743	5.6	2
8	FINDING OR NOT FINDING RULES IN TIME SERIES. *Advances in Econometrics*,175-201	0.3	2
7	Natura: Towards Conversational Analytics for Comparing and Contrasting Time Series **2020**,		2
6	Mining historical manuscripts with local color patches. *Knowledge and Information Systems*, **2012**, 30, 637-665	2.4	1
5	Towards Discovering the Intrinsic Cardinality and Dimensionality of Time Series Using MDL. *Lecture Notes in Computer Science*, **2013**, 184-197	0.9	1

4	Irrevocable-choice algorithms for sampling from a stream. *Data Mining and Knowledge Discovery*, **2016**, 30, 998-1023	5.6	1
3	Matrix Profile XVIII: Time Series Mining in the Face of Fast Moving Streams using a Learned Approximate Matrix Profile **2019**,		1
2	Qute: Query by Text Search for Time Series Data. *Advances in Intelligent Systems and Computing*, **2021**, 412-427	0.4	
1	Introducing the contrast profile: a novel time series primitive that allows real world classification. *Data Mining and Knowledge Discovery*, **2022**, 36, 877-915	5.6	