Wynne Hsu

List of Publications by Year
in descending order

128 papers	6,290 citations	136740 32 h-index	114278 63 g-index
133 all docs	133 docs citations	133 times ranked	5729 citing authors

#	Article	IF	Citations
1	Development and Validation of a Deep Learning System for Diabetic Retinopathy and Related Eye Diseases Using Retinal Images From Multiethnic Populations With Diabetes. JAMA - Journal of the American Medical Association, 2017, 318, 2211.	3.8	1,442
2	Pruning and summarizing the discovered associations. , 1999, , .		280
3	Retinal Vascular Tortuosity, Blood Pressure, and Cardiovascular Risk Factors. Ophthalmology, 2011, 118, 812-818.	2.5	220
4	Artificial intelligence using deep learning to screen for referable and vision-threatening diabetic retinopathy in Africa: a clinical validation study. The Lancet Digital Health, 2019, 1, e35-e44.	5.9	205
5	Quantitative and qualitative retinal microvascular characteristics and blood pressure. Journal of Hypertension, 2011, 29, 1380-1391.	0.3	196
6	Current research in the conceptual design of mechanical products. CAD Computer Aided Design, 1998, 30, 377-389.	1.4	181
7	The Retinal Vasculature as a Fractal: Methodology, Reliability, and Relationship to Blood Pressure. Ophthalmology, 2008, 115, 1951-1956.e1.	2.5	180
8	Quantitative Assessment of Early Diabetic Retinopathy Using Fractal Analysis. Diabetes Care, 2009, 32, 106-110.	4.3	179
9	Analyzing the subjective interestingness of association rules. IEEE Intelligent Systems, 2000, 15, 47-55.	0.2	154
10	Artificial intelligence for teleophthalmology-based diabetic retinopathy screening in a national programme: an economic analysis modelling study. The Lancet Digital Health, 2020, 2, e240-e249.	5.9	152
11	A deep-learning system for the assessment of cardiovascular disease risk via the measurement of retinal-vessel calibre. Nature Biomedical Engineering, 2021, 5, 498-508.	11.6	131
12	A deep learning algorithm to detect chronic kidney disease from retinal photographs in community-based populations. The Lancet Digital Health, 2020, 2, e295-e302.	5.9	130
13	Alterations in Retinal Microvascular Geometry in Young Type 1 Diabetes. Diabetes Care, 2010, 33, 1331-1336.	4.3	128
14	Fractal analysis of retinal microvasculature and coronary heart disease mortality. European Heart Journal, 2011, 32, 422-429.	1.0	124
15	Mining relationships among interval-based events for classification. , 2008, , .		109
16	Artificial Intelligence Screening for Diabetic Retinopathy: the Real-World Emerging Application. Current Diabetes Reports, 2019, 19, 72.	1.7	107
17	Image Mining: Trends and Developments. Journal of Intelligent Information Systems, 2002, 19, 7-23.	2.8	106
18	Finding interesting patterns using user expectations. IEEE Transactions on Knowledge and Data Engineering, 1999, 11, 817-832.	4.0	98

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19	Automatic Grading of Retinal Vessel Caliber. IEEE Transactions on Biomedical Engineering, 2005, 52, 1352-1355.	2.5	98
20	Retinal Vascular Fractal Dimension and Its Relationship With Cardiovascular and Ocular Risk Factors. American Journal of Ophthalmology, 2012, 154, 663-674.e1.	1.7	98
21	A New Method to Measure Peripheral Retinal Vascular Caliber over an Extended Area. Microcirculation, 2010, 17, no-no.	1.0	84
22	MaxFirst for MaxBRkNN. , 2011, , .		77
23	Efficient Mining of XML Query Patterns for Caching. , 2003, , 69-80.		75
24	BORDER: efficient computation of boundary points. IEEE Transactions on Knowledge and Data Engineering, 2006, 18, 289-303.	4.0	72
25	Increasing confidence of protein interactomes using network topological metrics. Bioinformatics, 2006, 22, 1998-2004.	1.8	70
26	Efficient remote homology detection using local structure. Bioinformatics, 2003, 19, 2294-2301.	1.8	67
27	Multi-level organization and summarization of the discovered rules. , 2000, , .		61
28	Feedback approach to design for assembly by evaluation of assembly plan. CAD Computer Aided Design, 1993, 25, 395-410.	1.4	53
29	Deep learning in estimating prevalence and systemic risk factors for diabetic retinopathy: a multi-ethnic study. Npj Digital Medicine, 2019, 2, 24.	5.7	53
30	Making recommendations from multiple domains. , 2013, , .		52
31	Integrated Optic Disc and Cup Segmentation with Deep Learning. , 2015, , .		52
32	Simultaneously Identifying All True Vessels From Segmented Retinal Images. IEEE Transactions on Biomedical Engineering, 2013, 60, 1851-1858.	2.5	42
33	Comparison of Common Retinal Vessel Caliber Measurement Software and a Conversion Algorithm. Translational Vision Science and Technology, 2016, 5, 11.	1.1	42
34	Labeling network motifs in protein interactomes for protein function prediction. , 2007, , .		41
35	Detection of Retinal Blood Vessels Based on Nonlinear Projections. Journal of Signal Processing Systems, 2009, 55, 103-112.	1.4	41
36	Increasing temporal diversity with purchase intervals. , 2012, , .		40

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37	Targeted Influence Maximization in Social Networks. , 2016, , .		40
38	Fast image retrieval using color-spatial information. VLDB Journal, 1998, 7, 115-128.	2.7	38
39	Discovering reliable protein interactions from high-throughput experimental data using network topology. Artificial Intelligence in Medicine, 2005, 35, 37-47.	3.8	38
40	Retinal Vascular Fractal Dimension Measurement and Its Influence from Imaging Variation: Results of Two Segmentation Methods. Current Eye Research, 2010, 35, 850-856.	0.7	37
41	Community-based user recommendation in uni-directional social networks. , 2013, , .		37
42	Remote homolog detection using local sequence-structure correlations. Proteins: Structure, Function and Bioinformatics, 2004, 57, 518-530.	1.5	36
43	On the accurate counting of tumor cells. IEEE Transactions on Nanobioscience, 2003, 2, 94-103.	2.2	34
44	Temporal Influence Blocking: Minimizing the Effect of Misinformation in Social Networks. , 2017, , .		33
45	Measurement of Macular Fractal Dimension Using a Computer-Assisted Program. , 2014, 55, 2237.		32
46	Automated Optic Disc Localization and Contour Detection Using Ellipse Fitting and Wavelet Transform. Lecture Notes in Computer Science, 2004, , 139-151.	1.0	29
47	Lens opacity and refractive influences on the measurement of retinal vascular fractal dimension. Acta Ophthalmologica, 2010, 88, e234-40.	0.6	29
48	Technical and imaging factors influencing performance of deep learning systems for diabetic retinopathy. Npj Digital Medicine, 2020, 3, 40.	5.7	28
49	Effect of Image Quality, Color, and Format on the Measurement of Retinal Vascular Fractal Dimension. , 2010, 51, 5525.		27
50	A framework for mining topological patterns in spatio-temporal databases. , 2005, , .		26
51	Finding hot query patterns over an XQuery stream. VLDB Journal, 2004, 13, 318-332.	2.7	23
52	Mitigating Misinformation in Online Social Network with Top-k Debunkers and Evolving User Opinions. , 2020, , .		20
53	Clustering in Dynamic Spatial Databases. Journal of Intelligent Information Systems, 2005, 24, 5-27.	2.8	19
54	Modeling user's receptiveness over time for recommendation. , 2013, , .		19

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55	Answering Top-k Similar Region Queries. Lecture Notes in Computer Science, 2010, , 186-201.	1.0	19
56	Synthesis of design concepts from a design for assembly perspective. Computer Integrated Manufacturing Systems, 1998, 11, 1-13.	0.1	18
57	Concept lattice based composite classifiers for high predictability. Journal of Experimental and Theoretical Artificial Intelligence, 2002, 14, 143-156.	1.8	18
58	Incorporating Duration Information for Trajectory Classification. , 2012, , .		18
59	An evaluation of XML indexes for structural join. SIGMOD Record, 2004, 33, 28-33.	0.7	18
60	Node Immunization over Infectious Period. , 2015, , .		17
61	Linking Temporal Records for Profiling Entities. , 2015, , .		17
62	Generative Data Augmentation for Diabetic Retinopathy Classification. , 2020, , .		17
63	Mining viewpoint patterns in image databases. , 2003, , .		16
64	Entity profiling with varying source reliabilities. , 2014, , .		16
65	Efficient mining of frequent XML query patterns with repeating-siblings. Information and Software Technology, 2008, 50, 375-389.	3.0	15
66	Feature Isolation for Hypothesis Testing in Retinal Imaging: An Ischemic Stroke Prediction Case Study. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 9510-9515.	3.6	14
67	Consistent Top-k Queries over Time. Lecture Notes in Computer Science, 2009, , 51-65.	1.0	14
68	Automated Microaneurysm Segmentation and Detection using Generalized Eigenvectors. , 2005, , .		13
69	Image mining in IRIS. SIGMOD Record, 2000, 29, 593.	0.7	12
70	Approximating Content-Based Object-Level Image Retrieval. Multimedia Tools and Applications, 2000, 12, 59-79.	2.6	12
71	A unified framework for recommendations based on quaternary semantic analysis. , 2011, , .		12
72	Correlation-Based Detection of Attribute Outliers. , 2007, , 164-175.		12

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73	Image mining in IRIS. , 2000, , .		11
74	Correlation and Reproducibility of Retinal Vascular Geometric Measurements for Stereoscopic Retinal Images of the Same Eyes. Ophthalmic Epidemiology, 2012, 19, 322-327.	0.8	11
75	Validation of a Natural Language Processing Algorithm for Detecting Infectious Disease Symptoms in Primary Care Electronic Medical Records in Singapore. JMIR Medical Informatics, 2018, 6, e36.	1.3	11
76	Increasing confidence of protein-protein interactomes. Genome Informatics, 2006, 17, 284-97.	0.4	11
77	Building Trust in Deep Learning System towards Automated Disease Detection. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 9516-9521.	3.6	10
78	Tagcloud-based explanation with feedback for recommender systems. , 2013, , .		9
79	Correlation-based Attribute Outlier Detection in XML. , 2008, , .		8
80	Discovering Spatial Interaction Patterns. , 2008, , 95-109.		8
81	Spatial data mining: clustering of hot spots and pattern recognition. , 0, , .		7
82	An Estimation System for XPath Expressions. , 2006, , .		7
83	A Partition-Based Approach to Graph Mining. , 2006, , .		7
84	iFACT. , 2017, , .		7
85	Technical and clinical challenges of A.I. in retinal image analysis. , 2019, , 445-466.		7
86	Automatic generation of goal regions for assembly tasks in the presence of uncertainty. IEEE Transactions on Automation Science and Engineering, 1996, 12, 313-323.	2.4	6
87	Mining Brokers in Dynamic Social Networks. , 2015, , .		6
88	Prediction of Cerebral Aneurysm Rupture. , 2007, , .		5
89	Discovering geographical-specific interests from web click data. , 2008, , .		5
90	Effective Detection of Retinal Exudates in Fundus Images. , 2009, , .		5

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91	Integrating Frequent Pattern Mining from Multiple Data Domains for Classification. , 2012, , .		5
92	FLEX: Faithful Linguistic Explanations for Neural Net Based Model Decisions. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 2539-2546.	3.6	5
93	Lag Patterns in Time Series Databases. Lecture Notes in Computer Science, 2010, , 209-224.	1.0	5
94	Segmentation of Retinal Vessels Using Nonlinear Projections. , 2007, , .		4
95	Mining mutation chains in biological sequences. , 2010, , .		4
96	Utilizing users' tipping points in E-commerce Recommender systems. , 2013, , .		4
97	Propagation Mechanism for Deep and Wide Neural Networks. , 2019, , .		4
98	FARM : Feature-Assisted Aggregate Route Mining in Trajectory Data. , 2009, , .		3
99	Similar Subsequence Search in Time Series Databases. Lecture Notes in Computer Science, 2011, , 232-246.	1.0	3
100	Target-Oriented Keyword Search over Temporal Databases. Lecture Notes in Computer Science, 2016, , 3-19.	1.0	3
101	Latent Retrieval for Large-Scale Fact-Checking and Question Answering with NLI training. , 2020, , .		3
102	Scheduling multimedia applications under overload and non-deterministic conditions. , 0, , .		2
103	KPN: a Petri net model for general knowledge representation and reasoning. , 0, , .		2
104	A Tree Matching Approach for the Temporal Registration of Retinal Images. , 2006, , .		2
105	LinkNet: capturing temporal dependencies among spatial regions. Distributed and Parallel Databases, 2015, 33, 165-200.	1.0	2
106	Profiling Entities over Time in the Presence of Unreliable Sources. IEEE Transactions on Knowledge and Data Engineering, 2017, 29, 1522-1535.	4.0	2
107	Enhanced Detection of Referable Diabetic Retinopathy via DCNNs and Transfer Learning. Lecture Notes in Computer Science, 2019, , 282-288.	1.0	2
108	Artificial Intelligence Using Deep Learning in Classifying Side of the Eyes and Width of Field for Retinal Fundus Photographs. Lecture Notes in Computer Science, 2019, , 309-315.	1.0	2

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109	Intermediate Goals in Deep Learning for Retinal Image Analysis. Lecture Notes in Computer Science, 2019, , 276-281.	1.0	2
110	A computer-aided product redesign system for robotic assembly. Robotica, 1998, 16, 239-249.	1.3	1
111	Finding Orientation-Sensitive Patterns in Snapshot Databases. , 2007, , .		1
112	Mining Prevalence-Based Ratio Patterns. , 2007, , .		1
113	Exploiting Domain Knowledge to Improve Biological Significance of Biclusters with Key Missing Genes. Proceedings - International Conference on Data Engineering, 2009, , .	0.0	1
114	Analyzing Abnormal Events from Spatio-temporal Trajectories. , 2009, , .		1
115	Discriminative Mutation Chains in Virus Sequences. , 2011, , .		1
116	Distributed Coordination Guidance in Multi-agent Reinforcement Learning. , 2011, , .		1
117	A Differential-Based Approach for Vessel Type Classification in Retinal Images. , 2018, , .		1
118	Top-k Maximal Influential Paths in Network Data. Lecture Notes in Computer Science, 2012, , 369-383.	1.0	1
119	Approximating scheduling for multimedia applications under overload conditions. International Journal of Approximate Reasoning, 1998, 19, 57-71.	1.9	0
120	Twins: A Practical Vision-based 3D Mouse. Real Time Imaging, 1998, 4, 389-401.	1.6	0
121	Rapid Prototyping with Constraints-based Scheduling for Multimedia Applications. Multimedia Tools and Applications, 1999, 8, 175-195.	2.6	0
122	A CORBA Based QOS Support for Distributed Multimedia Applications. Multimedia Tools and Applications, 2000, 12, 209-233.	2.6	0
123	Efficient Mining of Lag Patterns in Evolving Time Series. Lecture Notes in Computer Science, 2013, , 76-101.	1.0	0
124	Database research at the National University of Singapore. SIGMOD Record, 2013, 42, 46-51.	0.7	0
125	MAROON+: A System for Profiling Entities over Time. , 2017, , .		0
126	Detecting Aggregate Incongruities in XML. Lecture Notes in Computer Science, 2009, , 601-615.	1.0	0

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127	A PrÃ¼fer Based Approach to Process Top-k Queries in XML. Lecture Notes in Computer Science, 2009, , 348-355.	1.0	0
128	Incremental Mining of Top-k Maximal Influential Paths in Network Data. Lecture Notes in Computer Science, 2013, , 173-199.	1.0	0