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	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
2	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
3	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
4	Technical and imaging factors influencing performance of deep learning systems for diabetic retinopathy. Npj Digital Medicine, 2020, 3, 40.	5.7	28
5	Mitigating Misinformation in Online Social Network with Top-k Debunkers and Evolving User Opinions. , 2020, , .		20
6	Generative Data Augmentation for Diabetic Retinopathy Classification. , 2020, , .		17
7	Latent Retrieval for Large-Scale Fact-Checking and Question Answering with NLI training. , 2020, , .		3
8	Artificial Intelligence Screening for Diabetic Retinopathy: the Real-World Emerging Application. Current Diabetes Reports, 2019, 19, 72.	1.7	107
9	Enhanced Detection of Referable Diabetic Retinopathy via DCNNs and Transfer Learning. Lecture Notes in Computer Science, 2019, , 282-288.	1.0	2
10	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
11	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
12	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
13	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
14	Propagation Mechanism for Deep and Wide Neural Networks. , 2019, , .		4
15	Technical and clinical challenges of A.I. in retinal image analysis. , 2019, , 445-466.		7
16	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
17	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
18	Intermediate Goals in Deep Learning for Retinal Image Analysis. Lecture Notes in Computer Science, 2019, , 276-281.	1.0	2

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19	A Differential-Based Approach for Vessel Type Classification in Retinal Images. , 2018, , .		1
20	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
21	Temporal Influence Blocking: Minimizing the Effect of Misinformation in Social Networks. , 2017, , .		33
22	Profiling Entities over Time in the Presence of Unreliable Sources. IEEE Transactions on Knowledge and Data Engineering, 2017, 29, 1522-1535.	4.0	2
23	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
24	MAROON+: A System for Profiling Entities over Time. , 2017, , .		0
25	iFACT. , 2017, , .		7
26	Comparison of Common Retinal Vessel Caliber Measurement Software and a Conversion Algorithm. Translational Vision Science and Technology, 2016, 5, 11.	1.1	42
27	Targeted Influence Maximization in Social Networks. , 2016, , .		40
28	Target-Oriented Keyword Search over Temporal Databases. Lecture Notes in Computer Science, 2016, , 3-19.	1.0	3
29	Integrated Optic Disc and Cup Segmentation with Deep Learning. , 2015, , .		52
30	Node Immunization over Infectious Period. , 2015, , .		17
31	Linking Temporal Records for Profiling Entities. , 2015, , .		17
32	LinkNet: capturing temporal dependencies among spatial regions. Distributed and Parallel Databases, 2015, 33, 165-200.	1.0	2
33	Mining Brokers in Dynamic Social Networks. , 2015, , .		6
34	Entity profiling with varying source reliabilities. , 2014, , .		16
35	Measurement of Macular Fractal Dimension Using a Computer-Assisted Program. , 2014, 55, 2237.		32
36	Making recommendations from multiple domains. , 2013, , .		52

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37	Modeling user's receptiveness over time for recommendation. , 2013, , .		19
38	Utilizing users' tipping points in E-commerce Recommender systems. , 2013, , .		4
39	Simultaneously Identifying All True Vessels From Segmented Retinal Images. IEEE Transactions on Biomedical Engineering, 2013, 60, 1851-1858.	2.5	42
40	Community-based user recommendation in uni-directional social networks. , 2013, , .		37
41	Tagcloud-based explanation with feedback for recommender systems. , 2013, , .		9
42	Efficient Mining of Lag Patterns in Evolving Time Series. Lecture Notes in Computer Science, 2013, , 76-101.	1.0	0
43	Database research at the National University of Singapore. SIGMOD Record, 2013, 42, 46-51.	0.7	0
44	Incremental Mining of Top-k Maximal Influential Paths in Network Data. Lecture Notes in Computer Science, 2013, , 173-199.	1.0	0
45	Increasing temporal diversity with purchase intervals. , 2012, , .		40
46	Integrating Frequent Pattern Mining from Multiple Data Domains for Classification. , 2012, , .		5
47	Incorporating Duration Information for Trajectory Classification. , 2012, , .		18
48	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
49	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
50	Top-k Maximal Influential Paths in Network Data. Lecture Notes in Computer Science, 2012, , 369-383.	1.0	1
51	Fractal analysis of retinal microvasculature and coronary heart disease mortality. European Heart Journal, 2011, 32, 422-429.	1.0	124
52	Discriminative Mutation Chains in Virus Sequences. , 2011, , .		1
53	Retinal Vascular Tortuosity, Blood Pressure, and Cardiovascular Risk Factors. Ophthalmology, 2011, 118, 812-818.	2.5	220
54	Quantitative and qualitative retinal microvascular characteristics and blood pressure. Journal of Hypertension, 2011, 29, 1380-1391.	0.3	196

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55	A unified framework for recommendations based on quaternary semantic analysis. , 2011, , .		12
56	MaxFirst for MaxBRkNN. , 2011, , .		77
57	Distributed Coordination Guidance in Multi-agent Reinforcement Learning. , 2011, , .		1
58	Similar Subsequence Search in Time Series Databases. Lecture Notes in Computer Science, 2011, , 232-246.	1.0	3
59	A New Method to Measure Peripheral Retinal Vascular Caliber over an Extended Area. Microcirculation, 2010, 17, no-no.	1.0	84
60	Effect of Image Quality, Color, and Format on the Measurement of Retinal Vascular Fractal Dimension. , 2010, 51, 5525.		27
61	Mining mutation chains in biological sequences. , 2010, , .		4
62	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
63	Alterations in Retinal Microvascular Geometry in Young Type 1 Diabetes. Diabetes Care, 2010, 33, 1331-1336.	4.3	128
64	Lens opacity and refractive influences on the measurement of retinal vascular fractal dimension. Acta Ophthalmologica, 2010, 88, e234-40.	0.6	29
65	Answering Top-k Similar Region Queries. Lecture Notes in Computer Science, 2010, , 186-201.	1.0	19
66	Lag Patterns in Time Series Databases. Lecture Notes in Computer Science, 2010, , 209-224.	1.0	5
67	FARM : Feature-Assisted Aggregate Route Mining in Trajectory Data. , 2009, , .		3
68	Exploiting Domain Knowledge to Improve Biological Significance of Biclusters with Key Missing Genes. Proceedings - International Conference on Data Engineering, 2009, , .	0.0	1
69	Quantitative Assessment of Early Diabetic Retinopathy Using Fractal Analysis. Diabetes Care, 2009, 32, 106-110.	4.3	179
70	Detection of Retinal Blood Vessels Based on Nonlinear Projections. Journal of Signal Processing Systems, 2009, 55, 103-112.	1.4	41
71	Analyzing Abnormal Events from Spatio-temporal Trajectories. , 2009, , .		1
72	Effective Detection of Retinal Exudates in Fundus Images. , 2009, , .		5

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73	Consistent Top-k Queries over Time. Lecture Notes in Computer Science, 2009, , 51-65.	1.0	14
74	Detecting Aggregate Incongruities in XML. Lecture Notes in Computer Science, 2009, , 601-615.	1.0	0
75	A PrÃ¼fer Based Approach to Process Top-k Queries in XML. Lecture Notes in Computer Science, 2009, , 348-355.	1.0	0
76	Efficient mining of frequent XML query patterns with repeating-siblings. Information and Software Technology, 2008, 50, 375-389.	3.0	15
77	The Retinal Vasculature as a Fractal: Methodology, Reliability, and Relationship to Blood Pressure. Ophthalmology, 2008, 115, 1951-1956.e1.	2.5	180
78	Correlation-based Attribute Outlier Detection in XML. , 2008, , .		8
79	Discovering geographical-specific interests from web click data. , 2008, , .		5
80	Mining relationships among interval-based events for classification. , 2008, , .		109
81	Discovering Spatial Interaction Patterns. , 2008, , 95-109.		8
82	Prediction of Cerebral Aneurysm Rupture. , 2007, , .		5
83	Segmentation of Retinal Vessels Using Nonlinear Projections. , 2007, , .		4
84	Finding Orientation-Sensitive Patterns in Snapshot Databases. , 2007, , .		1
85	Mining Prevalence-Based Ratio Patterns. , 2007, , .		1
86	Labeling network motifs in protein interactomes for protein function prediction. , 2007, , .		41
87	Correlation-Based Detection of Attribute Outliers. , 2007, , 164-175.		12
88	An Estimation System for XPath Expressions. , 2006, , .		7
89	A Tree Matching Approach for the Temporal Registration of Retinal Images. , 2006, , .		2
90	BORDER: efficient computation of boundary points. IEEE Transactions on Knowledge and Data Engineering, 2006, 18, 289-303.	4.0	72

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91	A Partition-Based Approach to Graph Mining. , 2006, , .		7
92	Increasing confidence of protein interactomes using network topological metrics. Bioinformatics, 2006, 22, 1998-2004.	1.8	70
93	Increasing confidence of protein-protein interactomes. Genome Informatics, 2006, 17, 284-97.	0.4	11
94	Discovering reliable protein interactions from high-throughput experimental data using network topology. Artificial Intelligence in Medicine, 2005, 35, 37-47.	3.8	38
95	Automatic Grading of Retinal Vessel Caliber. IEEE Transactions on Biomedical Engineering, 2005, 52, 1352-1355.	2.5	98
96	Clustering in Dynamic Spatial Databases. Journal of Intelligent Information Systems, 2005, 24, 5-27.	2.8	19
97	A framework for mining topological patterns in spatio-temporal databases. , 2005, , .		26
98	Automated Microaneurysm Segmentation and Detection using Generalized Eigenvectors. , 2005, , .		13
99	Automated Optic Disc Localization and Contour Detection Using Ellipse Fitting and Wavelet Transform. Lecture Notes in Computer Science, 2004, , 139-151.	1.0	29
100	Finding hot query patterns over an XQuery stream. VLDB Journal, 2004, 13, 318-332.	2.7	23
101	Remote homolog detection using local sequence-structure correlations. Proteins: Structure, Function and Bioinformatics, 2004, 57, 518-530.	1.5	36
102	An evaluation of XML indexes for structural join. SIGMOD Record, 2004, 33, 28-33.	0.7	18
103	Mining viewpoint patterns in image databases. , 2003, , .		16
104	On the accurate counting of tumor cells. IEEE Transactions on Nanobioscience, 2003, 2, 94-103.	2.2	34
105	Efficient remote homology detection using local structure. Bioinformatics, 2003, 19, 2294-2301.	1.8	67
106	Efficient Mining of XML Query Patterns for Caching. , 2003, , 69-80.		75
107	Concept lattice based composite classifiers for high predictability. Journal of Experimental and Theoretical Artificial Intelligence, 2002, 14, 143-156.	1.8	18
108	Image Mining: Trends and Developments. Journal of Intelligent Information Systems, 2002, 19, 7-23.	2.8	106

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109	Image mining in IRIS. SIGMOD Record, 2000, 29, 593.	0.7	12
110	Analyzing the subjective interestingness of association rules. IEEE Intelligent Systems, 2000, 15, 47-55.	0.2	154
111	A CORBA Based QOS Support for Distributed Multimedia Applications. Multimedia Tools and Applications, 2000, 12, 209-233.	2.6	0
112	Approximating Content-Based Object-Level Image Retrieval. Multimedia Tools and Applications, 2000, 12, 59-79.	2.6	12
113	Image mining in IRIS. , 2000, , .		11
114	Multi-level organization and summarization of the discovered rules. , 2000, , .		61
115	Pruning and summarizing the discovered associations. , 1999, , .		280
116	Rapid Prototyping with Constraints-based Scheduling for Multimedia Applications. Multimedia Tools and Applications, 1999, 8, 175-195.	2.6	0
117	Finding interesting patterns using user expectations. IEEE Transactions on Knowledge and Data Engineering, 1999, 11, 817-832.	4.0	98
118	Current research in the conceptual design of mechanical products. CAD Computer Aided Design, 1998, 30, 377-389.	1.4	181
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	Fast image retrieval using color-spatial information. VLDB Journal, 1998, 7, 115-128.	2.7	38
122	Synthesis of design concepts from a design for assembly perspective. Computer Integrated Manufacturing Systems, 1998, 11, 1-13.	0.1	18
123	A computer-aided product redesign system for robotic assembly. Robotica, 1998, 16, 239-249.	1.3	1
124	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
125	Feedback approach to design for assembly by evaluation of assembly plan. CAD Computer Aided Design, 1993, 25, 395-410.	1.4	53
126	Scheduling multimedia applications under overload and non-deterministic conditions. , 0, , .		2

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127	KPN: a Petri net model for general knowledge representation and reasoning. , 0, , .		2
128	Spatial data mining: clustering of hot spots and pattern recognition. , 0, , .		7