Shu-Ching Chen

List of Publications by Year
in descending order

163 papers	4,052 citations	361045 20 h-index	168136 53 g-index
164 all docs	164 docs citations	164 times ranked	3207 citing authors

#	Article	IF	Citations
1	A Survey on Deep Learning. ACM Computing Surveys, 2019, 51, 1-36.	16.1	796
2	A progressive morphological filter for removing nonground measurements from airborne LIDAR data. IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 872-882.	2.7	732
3	Multimedia Big Data Analytics. ACM Computing Surveys, 2019, 51, 1-34.	16.1	171
4	Computational Health Informatics in the Big Data Age. ACM Computing Surveys, 2017, 49, 1-36.	16.1	162
5	Video Semantic Event/Concept Detection Using a Subspace-Based Multimedia Data Mining Framework. IEEE Transactions on Multimedia, 2008, 10, 252-259.	5.2	114
6	Deep Learning for Imbalanced Multimedia Data Classification. , 2015, , .		93
7	Predicting losses of residential structures in the state of Florida by the public hurricane loss evaluation model. Statistical Methodology, 2010, 7, 552-573.	0.5	71
8	Data-Driven Techniques in Disaster Information Management. ACM Computing Surveys, 2018, 50, 1-45.	16.1	66
9	Learning-based spatio-temporal vehicle tracking and indexing for transportation multimedia database systems. IEEE Transactions on Intelligent Transportation Systems, 2003, 4, 154-167.	4.7	57
10	Multimodal deep representation learning for video classification. World Wide Web, 2019, 22, 1325-1341.	2.7	52
11	Semantic event detection via multimodal data mining. IEEE Signal Processing Magazine, 2006, 23, 38-46.	4.6	47
12	Weighted Subspace Filtering and Ranking Algorithms for Video Concept Retrieval. IEEE MultiMedia, 2011, 18, 32-43.	1.5	47
13	Catastrophe Model-Based Assessment of Hurricane Risk and Estimates of Potential Insured Losses for the State of Florida. Natural Hazards Review, 2011, 12, 171-176.	0.8	43
14	Automatic Video Event Detection for Imbalance Data Using Enhanced Ensemble Deep Learning. International Journal of Semantic Computing, 2017, 11, 85-109.	0.4	43
15	IDENTIFYING OVERLAPPED OBJECTS FOR VIDEO INDEXING AND MODELING IN MULTIMEDIA DATABASE SYSTEMS. International Journal on Artificial Intelligence Tools, 2001, 10, 715-734.	0.7	42
16	Innovative Shot Boundary Detection for Video Indexing. , 0, , 217-236.		40
17	Video Semantic Concept Discovery using Multimodal-Based Association Classification. , 2007, , .		39
18	Correlation-Based Video Semantic Concept Detection Using Multiple Correspondence Analysis. , 2008, , .		37

#	ARTICLE	IF	CITATIONS
19	A Human-Centered Multiple Instance Learning Framework for Semantic Video Retrieval. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2009, 39, 228-233.	3.3	37
20	A spatio-temporal semantic model for multimedia database systems and multimedia information systems. IEEE Transactions on Knowledge and Data Engineering, 2001, 13, 607-622.	4.0	36
21	Florida public hurricane loss model: Research in multi-disciplinary system integration assisting government policy making. Government Information Quarterly, 2009, 26, 285-294.	4.0	36
22	Generalized Affinity-Based Association Rule Mining for Multimedia Database Queries. Knowledge and Information Systems, 2001, 3, 319-337.	2.1	33
23	A decision tree-based multimodal data mining framework for soccer goal detection. , 0, , .		33
24	Effective supervised discretization for classification based on correlation maximization. , 2011, , .		33
25	Multimodal deep learning based on multiple correspondence analysis for disaster management. World Wide Web, 2019, 22, 1893-1911.	2.7	33
26	Effective Feature Space Reduction with Imbalanced Data for Semantic Concept Detection. , 2008, , .		32
27	DeepFood: Automatic Multi-Class Classification of Food Ingredients Using Deep Learning. , 2017, , .		32
28	Network intrusion detection through Adaptive Sub-Eigenspace Modeling in multiagent systems. ACM Transactions on Autonomous and Adaptive Systems, 2007, 2, 9.	0.4	31
29	Augmented transition networks as video browsing models for multimedia databases and multimedia information systems. , 0, , .		30
30	Image database retrieval utilizing affinity relationships. , 2003, , .		30
31	A Latent Semantic Indexing Based Method for Solving Multiple Instance Learning Problem in Region-Based Image Retrieval. , 0, , .		29
32	Feature Selection Using Correlation and Reliability Based Scoring Metric for Video Semantic Detection. , 2010, , .		27
33	A unified framework for image database clustering and content-based retrieval. , 2004, , .		26
34	Handling Nominal Features in Anomaly Intrusion Detection Problems. , 0, , .		26
35	An efficient deep residual-inception network for multimedia classification. , 2017, , .		25
36	Web document classification based on fuzzy association. , 0, , .		24

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37	Collaborative Filtering by Mining Association Rules from User Access Sequences. , 0, , .		24
38	Video scene change detection method using unsupervised segmentation and object tracking. , 2001, , .		23
39	Function approximation using robust wavelet neural networks. , 0, , .		23
40	Hierarchical Temporal Association Mining for Video Event Detection in Video Databases. , 2007, , .		23
41	Hierarchical disaster image classification for situation report enhancement. , 2011, , .		22
42	A web-based spatial data access system using semantic R-trees. Information Sciences, 2004, 167, 41-61.	4.0	20
43	Evolutionary Programming Based Deep Learning Feature Selection and Network Construction for Visual Data Classification. Information Systems Frontiers, 2020, 22, 1053-1066.	4.1	20
44	A Web-based distributed system for hurricane occurrence projection. Software - Practice and Experience, 2004, 34, 549-571.	2.5	19
45	A Multiple Instance Learning Approach for Content Based Image Retrieval Using One-Class Support Vector Machine. , 0, , .		19
46	A Classifier Ensemble Framework for Multimedia Big Data Classification. , 2016, , .		19
47	Multimedia Databases and Data Management. International Journal of Multimedia Data Engineering and Management, 2010, 1, 1-11.	0.3	19
48	Scene change detection by audio and video clues. , 0, , .		18
49	Video semantic concept detection via associative classification. , 2009, , .		18
50	Semantic Event Detection Using Ensemble Deep Learning. , 2016, , .		18
51	OVERVIEW AND FUTURE TRENDS OF MULTIMEDIA RESEARCH FOR CONTENT ACCESS AND DISTRIBUTION. International Journal of Semantic Computing, 2007, 01, 29-66.	0.4	17
52	Unconstrained Flood Event Detection Using Adversarial Data Augmentation. , 2019, , .		16
53	Multimedia Research Toward the Metaverse. IEEE MultiMedia, 2022, 29, 125-127.	1.5	16
54	Probabilistic semantic network-based image retrieval using MMM and relevance feedback. Multimedia Tools and Applications, 2006, 30, 131-147.	2.6	15

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55	Mining user access patterns with traversal constraint for predicting web page requests. Knowledge and Information Systems, 2006, 10, 515-528.	2.1	14
56	3D video representation and design for ubiquitous environments. Multimedia Tools and Applications, 2013, 67, 1-6.	2.6	14
57	Challenges in Energy-Efficient Deep Neural Network Training with FPGA. , 2020, , .		14
58	An effective content-based visual image retrieval system. , 0, , .		13
59	Automatic Convolutional Neural Network Selection for Image Classification Using Genetic Algorithms. , 2018, , .		13
60	Mining user access behavior on the WWW. , 0, , .		12
61	An intelligent framework for spatio-temporal vehicle tracking. , 0, , .		12
62	Affinity Hybrid Tree: An Indexing Technique for Content-Based Image Retrieval in Multimedia Databases. , 2006, , .		12
63	MCA-NN: Multiple Correspondence Analysis Based Neural Network for Disaster Information Detection. , 2017, , .		12
64	MADIS: A Multimedia-Aided Disaster Information Integration System for Emergency Management. , 2012, , .		12
65	Spatiotemporal vehicle tracking - The use of unsupervised learning-based segmentation and object tracking spatiotemporal vehicle tracking. IEEE Robotics and Automation Magazine, 2005, 12, 50-58.	2.2	11
66	Multimedia Big Data. IEEE MultiMedia, 2015, 22, 93-95.	1.5	11
67	Multimedia for Autonomous Driving. IEEE MultiMedia, 2019, 26, 5-8.	1.5	11
68	Stochastic Clustering for Organizing Distributed Information Sources. IEEE Transactions on Systems, Man, and Cybernetics, 2004, 34, 2035-2047.	5.5	10
69	Semantic Concept Detection Using Weighted Discretization Multiple Correspondence Analysis for Disaster Information Management. , 2016, , .		10
70	Video streaming over the internet with optimal bandwidth resource allocation. Multimedia Tools and Applications, 2008, 40, 111-134.	2.6	9
71	Confidence Estimation Using Machine Learning in Immersive Learning Environments. , 2020, , .		9
72	Optimal resource utilization in multimedia transmission. , 2001, , .		8

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73	An Enhanced Query Model for Soccer Video Retrieval Using Temporal Relationships. , 0, , .		8
74	A NOVEL INDEXING AND ACCESS MECHANISM USING AFFINITY HYBRID TREE FOR CONTENT-BASED IMAGE RETRIEVAL IN MULTIMEDIA DATABASES. International Journal of Semantic Computing, 2007, 01, 147-170.	0.4	8
75	An Effective Multi-concept Classifier for Video Streams. , 2008, , .		8
76	Intelligent and Pervasive Multimedia Systems. IEEE MultiMedia, 2009, 16, 14-15.	1.5	8
77	A Video-Aided Semantic Analytics System for Disaster Information Integration. , 2017, , .		8
78	A probabilistic-based mechanism for video database management systems. , 0, , .		7
79	Optimal bandwidth allocation scheme with delay awareness in multimedia transmission. , 0, , .		7
80	Self-adjusted network transmission for multimedia data. , 0, , .		7
81	GeM-Tree: Towards a Generalized Multidimensional Index Structure Supporting Image and Video Retrieval. , 2008, , .		7
82	Content-Based Multimedia Retrieval Using Feature Correlation Clustering and Fusion. International Journal of Multimedia Data Engineering and Management, 2013, 4, 46-64.	0.3	7
83	Enabling Enriched TV Shopping Experience via Computational and Temporal Aware View-Centric Multimedia Abstraction. IEEE Transactions on Multimedia, 2015, 17, 1068-1080.	5.2	7
84	Correlation-Based Deep Learning for Multimedia Semantic Concept Detection. Lecture Notes in Computer Science, 2015, , 473-487.	1.0	7
85	A Multimedia Data Mining Framework: Mining Information from Traffic Video Sequences. Journal of Intelligent Information Systems, 2002, 19, 61-77.	2.8	6
86	MULTI-CLASS CLASSIFICATION VIA SUBSPACE MODELING. International Journal of Semantic Computing, 2011, 05, 55-78.	0.4	6
87	Enhancing Product Detection With Multicue Optimization for TV Shopping Applications. IEEE Transactions on Emerging Topics in Computing, 2015, 3, 161-171.	3.2	6
88	IF-MCA: Importance Factor-Based Multiple Correspondence Analysis for Multimedia Data Analytics. IEEE Transactions on Multimedia, 2018, 20, 1024-1032.	5.2	6
89	Deep Spatio-Temporal Representation Learning for Multi-Class Imbalanced Data Classification. , 2018, , .		6
90	Affinity-based probabilistic reasoning and document clustering on the WWW. , 0, , .		5

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91	An unsupervised segmentation framework for texture image queries. , 0, , .		5
92	Multiple object retrieval for image databases using multiple instance learning and relevance feedback. , 0, , .		5
93	An end-to-end video transmission framework with efficient bandwidth utilization. , 0, , .		5
94	An optimal resource utilization scheme with end-to-end congestion control for continuous media stream transmission. Computer Networks, 2006, 50, 921-937.	3.2	5
95	Correlation-based interestingness measure for video semantic concept detection. , 2009, , .		5
96	A SEMANTIC INDEX STRUCTURE FOR MULTIMEDIA RETRIEVAL. International Journal of Semantic Computing, 2012, 06, 155-178.	0.4	5
97	Domain Knowledge Assisted Data Processing for Florida Public Hurricane Loss Model (Invited Paper). , 2016, , .		5
98	Multimedia Deep Learning. IEEE MultiMedia, 2019, 26, 5-7.	1.5	5
99	Multi-task Multimodal Learning for Disaster Situation Assessment. , 2020, , .		5
100	IDENTIFYING TOPICS FOR WEB DOCUMENTS THROUGH FUZZY ASSOCIATION LEARNING. International Journal of Computational Intelligence and Applications, 2002, 02, 277-285.	0.6	4
101	An adaptive rate-control streaming mechanism with optimal buffer utilization. Journal of Systems and Software, 2005, 75, 271-282.	3.3	4
102	Integration of global and local information in videos for key frame extraction. , 2010, , .		4
103	Within and Between Shot Information Utilisation in Video Key Frame Extraction. Journal of Information and Knowledge Management, 2011, 10, 247-259.	0.8	4
104	Weighted subspace modeling for semantic concept retrieval using gaussian mixture models. Information Systems Frontiers, 2016, 18, 877-889.	4.1	4
105	Is Artificial Intelligence New to Multimedia?. IEEE MultiMedia, 2019, 26, 5-7.	1.5	4
106	Deep Learning With Weak Supervision for Disaster Scene Description in Low-Altitude Imagery. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-10.	2.7	4
107	A Survey on Data-driven COVID-19 and Future Pandemic Management. ACM Computing Surveys, 2023, 55, 1-36.	16.1	4
108	A multimedia semantic model for RTSP-based multimedia presentation systems. , 0, , .		3

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109	PixSO: a system for video shot detection. , 0, , .		3
110	An open multiple instance learning framework and its application in drug activity prediction problems. , 0, , .		3
111	Incorporating real-valued multiple instance learning into relevance feedback for image retrieval. , 2003, , .		3
112	An affinity-based image retrieval system for multimedia authoring and presentation. , 2003, , .		3
113	A Multi-Buffer Scheduling Scheme for Video Streaming. , 0, , .		3
114	Hierarchical affinity hybrid tree: A multidimensional index structure to organize videos and support content-based retrievals. , 2008, , .		3
115	A 3-D Traffic Animation System with Storm Surge Response. , 2009, , .		3
116	Data Management Support via Spectrum Perturbation-based Subspace Classification in Collaborative Environments. , 2011, , .		3
117	Efficient Content-Based Multimedia Retrieval Using Novel Indexing Structure in PostgreSQL. , 2013, , .		3
118	Negative-Based Sampling for Multimedia Retrieval. , 2015, , .		3
119	Integrated execution framework for catastrophe modeling. , 2015, , .		3
120	Multi-Label Multi-Task Learning with Dynamic Task Weight Balancing. , 2020, , .		3
121	Video Event Mining via Multimodal Content Analysis and Classification. , 2007, , 234-258.		3
122	Rule-Based Semantic Concept Classification from Large-Scale Video Collections. International Journal of Multimedia Data Engineering and Management, 2013, 4, 46-67.	0.3	3
123	Generalized Structure for Adaptable Immersive Learning Environments. , 2021, , .		3
124	Multimodal Data Integration for Interactive and Realistic Avatar Simulation in Augmented Reality. , 2021, , .		3
125	A live TV-quality distant learning multimedia presentation system for education. , 0, , .		2
126	Component-based design and integration of a distributed multimedia management system. , 0, , .		2

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127	Damage pattern mining in hurricane image databases. , 0, , .		2
128	A three-dimensional geographic and storm surge data integration system for evacuation planning. , 2010, , .		2
129	AH+-Tree: An Efficient Multimedia Indexing Structure for Similarity Queries. , 2011, , .		2
130	Emerging Multimedia Research and Applications. IEEE MultiMedia, 2015, 22, 11-13.	1.5	2
131	T-LRA: Trend-Based Learning Rate Annealing for Deep Neural Networks. , 2017, , .		2
132	FA-MCADF: Feature Affinity Based Multiple Correspondence Analysis and Decision Fusion Framework for Disaster Information Management. , 2017, , .		2
133	Multimedia in Virtual Reality and Augmented Reality. IEEE MultiMedia, 2021, 28, 5-7.	1.5	2
134	Embracing Multimodal Data in Multimedia Data Analysis. IEEE MultiMedia, 2021, 28, 5-7.	1.5	2
135	Weakly-Supervised Damaged Building Localization and Assessment with Noise Regularization. , 2021, , .		2
136	Multimedia Data Analysis With Edge Computing. IEEE MultiMedia, 2021, 28, 5-7.	1.5	2
137	A Bayesian network-based expert query system for a distributed database system. , 0, , .		1
138	Maintenance scheduling of oil storage tanks using tabu-based genetic algorithm. , 0, , .		1
139	Capturing high-level image concepts via affinity relationships in image database retrieval. Multimedia Tools and Applications, 2006, 32, 73-92.	2.6	1
140	Special issue on emerging multimedia applications. Multimedia Tools and Applications, 2010, 47, 347-351.	2.6	1
141	A Web-Based Task-Tracking Collaboration System for the Florida Public Hurricane Loss Model. , 2014, , .		1
142	Gaussian Mixture Model-Based Subspace Modeling for Semantic Concept Retrieval. , 2015, , .		1
143	Guest Editorial: Large-scale Multimedia Data Management: Techniques and Applications. Multimedia Tools and Applications, 2016, 75, 15341-15346.	2.6	1
144	Guest Editorial: Pervasive Multimedia Computingâ€"Systems Applications and Services. Multimedia Tools and Applications, 2016, 75, 14015-14017.	2.6	1

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145	Multimedia Research for Response and Management of COVID-19 and Future Pandemics. IEEE MultiMedia, 2021, 28, 5-6.	1.5	1
146	Classifier Fusion by Judgers on Spark Clusters for Multimedia Big Data Classification. Advances in Intelligent Systems and Computing, 2018, , 91-108.	0.5	1
147	MMIR. , 2009, , 371-387.		1
148	Hierarchical Multimodal Fusion Network with Dynamic Multi-task Learning. , 2021, , .		1
149	Community-Connect: COVID-19 Small Business Marketplace with Automated Regulation Matching and Company Lead Retrieval. , 2021, , .		1
150	Florida public hurricane loss model: Software system for insurance loss projection. Software - Practice and Experience, 2022, 52, 1736-1755.	2.5	1
151	Digital Assets and Blockchain-Based Multimedia Data Management. IEEE MultiMedia, 2022, 29, 5-7.	1.5	1
152	High performance Lempel-Ziv compression using optimized longest string parsing and adaptive Huffman window size. , 0, , .		0
153	Ensuring fairness in multimedia multicast streaming with optimal rate allocation and client buffer utilization. , 2003, , .		0
154	A novel rate-based hop by hop congestion control algorithm. , 0, , .		0
155	Introduction to the special issue on IEEE Multimedia Software Engineering 2004. Multimedia Systems, 2006, 11, 467-467.	3.0	0
156	T2K2: A Type II KASER. , 2006, , .		0
157	Knowledge acquisition from corresponding domain knowledge transformations. , 2009, , .		0
158	ACM/Springer Mobile Networks and Applications (MONET) Special Issue on â€œAdvanced Mobile Applications and Intelligent Multimedia systems for Ubi-Comâ€. Mobile Networks and Applications, 2010, 15, 475-476.	2.2	0
159	MMIR. , 2007, , 103-120.		0
160	A Multimedia-Based Threat Management and Information Security Framework. , 2008, , 1378-1395.		0
161	MMIR. , 2009, , 1189-1204.		0
162	Hybrid Query Refinement. International Journal of Multimedia Data Engineering and Management, 2011, 2, 52-71.	0.3	0

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163	Multimedia Databases and Data Management. , 2012, , 1-11.		0