Fabio A Gonzalez

List of Publications by Year
in descending order

132 papers	4,450 citations	236925 25 h-index	128289 60 g-index
136 all docs	136 docs citations	136 times ranked	4556 citing authors

#	Article	IF	Citations
1	Mandibular shape prediction model using machine learning techniques. Clinical Oral Investigations, 2022, 26, 3085-3096.	3.0	1
2	Grading diabetic retinopathy and prostate cancer diagnostic images with deep quantum ordinal regression. Computers in Biology and Medicine, 2022, 145, 105472.	7.0	8
3	Quantum measurement classification with qudits. Quantum Information Processing, 2022, 21, 1.	2.2	3
4	Optimisation-free density estimation and classification with quantum circuits. Quantum Machine Intelligence, 2022, 4, .	4.8	2
5	Robust kernels for robust location estimation. Neurocomputing, 2021, 429, 174-186.	5.9	5
6	What You Need to Know About Artificial Intelligence: Technical Introduction. Current Practices in Ophthalmology, 2021, , 13-25.	0.1	0
7	Classification with Quantum Measurements. Journal of the Physical Society of Japan, 2021, 90, 044002.	1.6	10
8	Many-Qudit Representation for the Travelling Salesman Problem Optimisation. Journal of the Physical Society of Japan, 2021, 90, 114002.	1.6	4
9	Automatic Grading Tool for Jupyter Notebooks in Artificial Intelligence Courses. Sustainability, 2021, 13, 12050.	3.2	11
10	Early author profiling on Twitter using profile features with multi-resolution. Expert Systems With Applications, 2020, 140, 112909.	7.6	13
11	Phase Diagram Reconstruction of the Bose–Hubbard Model with a Restricted Boltzmann Machine Wavefunction. Journal of the Physical Society of Japan, 2020, 89, 094002.	1.6	4
12	Gated multimodal networks. Neural Computing and Applications, 2020, 32, 10209-10228.	5.6	32
13	A Conditional Generative Adversarial Network-Based Method for Eye Fundus Image Quality Enhancement. Lecture Notes in Computer Science, 2020, , 185-194.	1.3	9
14	Hybrid Deep Learning Gaussian Process for Diabetic Retinopathy Diagnosis and Uncertainty Quantification. Lecture Notes in Computer Science, 2020, , 206-215.	1.3	9
15	Estrategia de enseñanza basada en la colaboración y la evaluación automática de código fuente en un curso de programación CS1. Investigación E Innovación En Ingenierías, 2020, 9, 50-60.	0.0	3
16	A lightweight deep learning model for mobile eye fundus image quality assessment. , 2020, , .		5
17	Multimodal Latent Semantic Alignment for Automated Prostate Tissue Classification and Retrieval. Lecture Notes in Computer Science, 2020, , 572-581.	1.3	4
18	Segmentation of retinal fluids and hyperreflective foci using deep learning approach in optical coherence tomography scans. , 2020, , .		5

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19	Transductive non-linear semantic embedding for multi-class classification. Pattern Recognition Letters, 2019, 128, 370-377.	4.2	1
20	Application of Polarimetric Features and Support Vector Machines for Classification of Improvised Explosive Devices. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 2282-2286.	4.0	8
21	Classification of diabetes-related retinal diseases using a deep learning approach in optical coherence tomography. Computer Methods and Programs in Biomedicine, 2019, 178, 181-189.	4.7	51
22	Novel Distributional Visual-Feature Representations for image classification. Multimedia Tools and Applications, 2019, 78, 11313-11336.	3.9	2
23	Exploiting label semantic relatedness for unsupervised image annotation with large free vocabularies. Multimedia Tools and Applications, 2019, 78, 19641-19662.	3.9	1
24	Continuous assessment in a computer programming course supported by a software tool. Computer Applications in Engineering Education, 2019, 27, 80-89.	3.4	28
25	Scalable multi-label annotation via semi-supervised kernel semantic embedding. Pattern Recognition Letters, 2019, 123, 97-103.	4.2	6
26	SOPHIA: System for Ophthalmic Image Acquisition, Transmission, and Intelligent Analysis. Revista Facultad De IngenierÃa, 2019, 29, e11769.	0.2	0
27	High-throughput adaptive sampling for whole-slide histopathology image analysis (HASHI) via convolutional neural networks: Application to invasive breast cancer detection. PLoS ONE, 2018, 13, e0196828.	2.5	100
28	Self-Regulated Learning in a Computer Programming Course. Revista Iberoamericana De Tecnologias Del Aprendizaje, 2018, 13, 75-83.	0.9	10
29	A Forward Collision Warning System for Smartphones Using Image Processing and V2V Communication. Sensors, 2018, 18, 2672.	3.8	10
30	A Two-Step Neural Network Approach to Passage Retrieval for Open Domain Question Answering. Lecture Notes in Computer Science, 2018, , 566-574.	1.3	2
31	A Strategy Based on Technological Maps for the Identification of the State-of-the-Art Techniques in Software Development Projects: Virtual Judge Projects as a Case Study. Communications in Computer and Information Science, 2018, , 338-354.	0.5	4
32	Semi-supervised Online Kernel Semantic Embedding for Multi-label Annotation. Lecture Notes in Computer Science, 2018, , 693-701.	1.3	1
33	UNCODE: INTERACTIVE SYSTEM FOR LEARNING AND AUTOMATIC EVALUATION OF COMPUTER PROGRAMMING SKILLS. EDULEARN Proceedings, 2018, , .	0.0	6
34	Supervised online matrix factorization for histopathological multimodal retrieval. , 2018, , .		1
35	A comprehensive assessment of ionospheric gradients observed in Ecuador during 2013 and 2014 for ground based augmentation systems. Advances in Space Research, 2017, 59, 1992-2006.	2.6	3
36	Accurate and reproducible invasive breast cancer detection in whole-slide images: A Deep Learning approach for quantifying tumor extent. Scientific Reports, 2017, 7, 46450.	3.3	360

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37	Use of automated learning techniques for predicting mandibular morphology in skeletal class I, II and III. Forensic Science International, 2017, 281, 187.e1-187.e7.	2.2	37
38	Variable neighborhood search to solve the vehicle routing problem for hazardous materials transportation. Journal of Hazardous Materials, 2017, 324, 472-480.	12.4	52
39	Local and global approaches for unsupervised image annotation. Multimedia Tools and Applications, 2017, 76, 16389-16414.	3.9	10
40	Mixed Integer Linear Programming Model for Vehicle Routing Problem for Hazardous Materials Transportation**Universidad Nacional de Colombia. Universite de Technologie de Troyes.. IFAC-PapersOnLine, 2016, 49, 538-543.	0.9	16
41	Mathematical properties of soft cardinality: Enhancing Jaccard, Dice and cosine similarity measures with element-wise distance. Information Sciences, 2016, 367-368, 373-389.	6.9	34
42	Improving the BoVW via discriminative visual n-grams and MKL strategies. Neurocomputing, 2016, 175, 768-781.	5.9	11
43	An automatic method for skeletal patterns classification using craniomaxillary variables on a Colombian population. Forensic Science International, 2016, 261, 159.e1-159.e6.	2.2	28
44	Representation learning for mammography mass lesion classification with convolutional neural networks. Computer Methods and Programs in Biomedicine, 2016, 127, 248-257.	4.7	342
45	Convolutional neural networks for mammography mass lesion classification. , 2015, 2015, 797-800.		88
46	ZETEMA: A web service for automatic short-answer questions grading. , 2015, , .		2
47	Automatic detection of wheezes by evaluation of multiple acoustic feature extraction methods and C-weighted SVM. , 2015, , .		4
48	An unsupervised feature learning framework for basal cell carcinoma image analysis. Artificial Intelligence in Medicine, 2015, 64, 131-145.	6.5	80
49	A comparative evaluation of supervised and unsupervised representation learning approaches for anaplastic medulloblastoma differentiation. , 2015, , .		7
50	Improving the efficiency of branch-and-bound complete-search NMR assignment using the symmetry of molecules and spectra. Journal of Chemical Physics, 2015, 142, 074103.	3.0	2
51	Assessment of algorithms for mitosis detection in breast cancer histopathology images. Medical Image Analysis, 2015, 20, 237-248.	11.6	338
52	Combining Unsupervised Feature Learning and Riesz Wavelets for Histopathology Image Representation: Application to Identifying Anaplastic Medulloblastoma. Lecture Notes in Computer Science, 2015, , 581-588.	1.3	12
53	Semi-supervised Dimensionality Reduction via Multimodal Matrix Factorization. Lecture Notes in Computer Science, 2015, , 676-682.	1.3	2
54	Image indexing using regularized online non-negative semantic embedding. Intelligent Data Analysis, 2014, 18, S101-S114.	0.9	0

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55	Cascaded ensemble of convolutional neural networks and handcrafted features for mitosis detection. Proceedings of SPIE, 2014, , .	0.8	31
56	Automatic detection of invasive ductal carcinoma in whole slide images with convolutional neural networks. Proceedings of SPIE, 2014, , .	0.8	224
57	Multimodal visualization based on latent topic analysis. , 2014, , .		3
58	Online multimodal matrix factorization for human action video indexing. , 2014, , .		1
59	Unsupervised feature learning for content-based histopathology image retrieval. , 2014, , .		5
60	Mitosis detection in breast cancer pathology images by combining handcrafted and convolutional neural network features. Journal of Medical Imaging, 2014, 1, 034003.	1.5	264
61	Extracting Salient Brain Patterns for Imaging-Based Classification of Neurodegenerative Diseases. IEEE Transactions on Medical Imaging, 2014, 33, 1262-1274.	8.9	35
62	Histology image search using multimodal fusion. Journal of Biomedical Informatics, 2014, 51, 114-128.	4.3	9
63	High Throughput Location Proteomics in Confocal Images from the Human Protein Atlas Using a Bag-of-Features Representation. Advances in Intelligent Systems and Computing, 2014, , 77-82.	0.6	1
64	Distributed Cache Strategies for Machine Learning Classification Tasks over Cluster Computing Resources. Communications in Computer and Information Science, 2014, , 43-53.	0.5	0
65	A kernel-based framework for image collection exploration. Journal of Visual Languages and Computing, 2013, 24, 53-67.	1.8	7
66	An evaluation of NMF algorithm on human action video retrieval. , 2013, , .		3
67	Visualizing multimodal image collections. , 2013, , .		0
68	MICS: Multimodal image collection summarization by optimal reconstruction subset selection. , 2013, , .		1
69	A comparison of geometric and energy-based point cloud semantic segmentation methods. , 2013, , .		1
70	Bag-of-visual-ngrams for histopathology image classification. , 2013, , .		6
71	An adaptive image representation learned from data for cervix cancer tumor detection. Proceedings of SPIE, 2013, , .	0.8	0
72	A Deep Learning Architecture for Image Representation, Visual Interpretability and Automated Basal-Cell Carcinoma Cancer Detection. Lecture Notes in Computer Science, 2013, 16, 403-410.	1.3	209

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73	Hybrid image representation learning model with invariant features for basal cell carcinoma detection. , 2013, , .		7
74	Large Scale Image Indexing Using Online Non-negative Semantic Embedding. Lecture Notes in Computer Science, 2013, , 367-374.	1.3	1
75	Online Matrix Factorization for Space Embedding Multilabel Annotation. Lecture Notes in Computer Science, 2013, , 343-350.	1.3	1
76	Automatic annotation of histopathological images using a latent topic model based on non-negative matrix factorization. Journal of Pathology Informatics, 2012, 2, 4.	1.7	24
77	BIGS: A framework for large-scale image processing and analysis over distributed and heterogeneous computing resources. , 2012, , .		7
78	Monitoring of illicit pill distribution networks using an image collection exploration framework. Forensic Science International, 2012, 223, 298-305.	2.2	11
79	Multimodal fusion for image retrieval using matrix factorization. , 2012, , .		18
80	A framework for high performance image analysis pipelines. , 2012, , .		2
81	Multimodal representation, indexing, automated annotation and retrieval of image collections via non-negative matrix factorization. Neurocomputing, 2012, 76, 50-60.	5.9	62
82	On the Robustness of Kernel-Based Clustering. Lecture Notes in Computer Science, 2012, , 122-129.	1.3	4
83	Online Matrix Factorization for Multimodal Image Retrieval. Lecture Notes in Computer Science, 2012, , 340-347.	1.3	4
84	Bag of Features for Automatic Classification of Alzheimerâ€™s Disease in Magnetic Resonance Images. Lecture Notes in Computer Science, 2012, , 559-566.	1.3	15
85	A Visual Latent Semantic Approach for Automatic Analysis and Interpretation of Anaplastic Medulloblastoma Virtual Slides. Lecture Notes in Computer Science, 2012, 15, 157-164.	1.3	14
86	Histology Image Indexing Using a Non-negative Semantic Embedding. Lecture Notes in Computer Science, 2012, , 80-91.	1.3	3
87	From Biomedical Image Analysis to Biomedical Image Understanding Using Machine Learning. , 2012, , 2010-2034.		0
88	A framework for semantic analysis of histopathological images using nonnegative matrix factorization. , 2011, , .		0
89	Learning regions of interest from low level maps in virtual microscopy. Diagnostic Pathology, 2011, 6, S22.	2.0	20
90	Content-based histopathology image retrieval using a kernel-based semantic annotation framework. Journal of Biomedical Informatics, 2011, 44, 519-528.	4.3	41

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91	Visual pattern mining in histology image collections using bag of features. Artificial Intelligence in Medicine, 2011, 52, 91-106.	6.5	104
92	Multimodal image collection summarization using non-negative matrix factorization. , 2011, , .		4
93	Combining visual features and text data for medical image retrieval using latent semantic kernels. , 2010, , .		16
94	Multimodal Image Annotation Using Non-negative Matrix Factorization. , 2010, , .		13
95	NMF-based multimodal image indexing for querying by visual example. , 2010, , .		12
96	A kernel-based strategy for exploratory image collection search. , 2010, , .		1
97	Text Comparison Using Soft Cardinality. Lecture Notes in Computer Science, 2010, , 297-302.	1.3	16
98	Multimodal Image Collection Visualization Using Non-negative Matrix Factorization. Lecture Notes in Computer Science, 2010, , 429-432.	1.3	1
99	Generalized Mongue-Elkan Method for Approximate Text String Comparison. Lecture Notes in Computer Science, 2009, , 559-570.	1.3	15
100	A semi-automatic method for quantification and classification of erythrocytes infected with malaria parasites in microscopic images. Journal of Biomedical Informatics, 2009, 42, 296-307.	4.3	180
101	Histopathology Image Classification Using Bag of Features and Kernel Functions. Lecture Notes in Computer Science, 2009, , 126-135.	1.3	117
102	Mining Candlesticks Patterns on Stock Series: A Fuzzy Logic Approach. Lecture Notes in Computer Science, 2009, , 661-670.	1.3	2
103	Visual Pattern Analysis in Histopathology Images Using Bag of Features. Lecture Notes in Computer Science, 2009, , 521-528.	1.3	3
104	A Multi-class Kernel Alignment Method for Image Collection Summarization. Lecture Notes in Computer Science, 2009, , 545-552.	1.3	8
105	A Semantic Content-Based Retrieval Method for Histopathology Images. , 2008, , 51-60.		19
106	Content-Based Medical Image Retrieval Using Low-Level Visual Features and Modality Identification. Lecture Notes in Computer Science, 2008, , 615-622.	1.3	7
107	INDIE: An Artificial Immune Network for On-Line Density Estimation. Lecture Notes in Computer Science, 2008, , 254-265.	1.3	0
108	Design of a Medical Image Database with Content-Based Retrieval Capabilities. , 2007, , 919-931.		15

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109	Mining Coronal Loops in Solar Images from the SOHO collection. , 2007, , .		0
110	Performance of Recommendation Systems in Dynamic Streaming Environments. , 2007, , .		20
111	Infected Cell Identification in Thin Blood Images Based on Color Pixel Classification: Comparison and Analysis. , 2007, , 812-821.		11
112	A Solution Concept for Artificial Immune Networks: A Coevolutionary Perspective. Lecture Notes in Computer Science, 2007, , 35-46.	1.3	3
113	Automatic Clump Splitting for Cell Quantification in Microscopical Images. , 2007, , 763-772.		7
114	A neuro-immune model for discriminating and visualizing anomalies. Natural Computing, 2006, 5, 285-304.	3.0	2
115	Collaborative filtering in dynamic usage environments. , 2006, , .		2
116	A Grid Computing Approach to Subtraction Radiography. , 2006, , .		5
117	CIDS: An agent-based intrusion detection system. Computers and Security, 2005, 24, 387-398.	6.0	51
118	Discriminating and visualizing anomalies using negative selection and self-organizing maps. , 2005, , .		7
119	A comparative analysis of artificial immune network models. , 2005, , .		31
120	Anomaly Detection Using Real-Valued Negative Selection. Genetic Programming and Evolvable Machines, 2003, 4, 383-403.	2.2	238
121	A Randomized Real-Valued Negative Selection Algorithm. Lecture Notes in Computer Science, 2003, , 261-272.	1.3	109
122	A Scalable Artificial Immune System Model for Dynamic Unsupervised Learning. Lecture Notes in Computer Science, 2003, , 219-230.	1.3	24
123	The Effect of Binary Matching Rules in Negative Selection. Lecture Notes in Computer Science, 2003, , 195-206.	1.3	61
124	Using Adaptive Operators in Genetic Search. Lecture Notes in Computer Science, 2003, , 1580-1581.	1.3	7
125	An immunity-based technique to characterize intrusions in computer networks. IEEE Transactions on Evolutionary Computation, 2002, 6, 281-291.	10.0	247
126	Combining negative selection and classification techniques for anomaly detection. , 0, , .		98

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127	Artificial immune system (AIS) research in the last five years. , 0, , .		144
128	Page Clustering Using a Distance-Based Algorithm. , 0, , .		3
129	Soft Cardinality in Semantic Text Processing: Experience of the SemEval International Competitions. Polibits, 0, 51, 63-72.	0.0	8
130	How to Adapt Deep Learning Models to a New Domain: The Case of Biomedical Relation Extraction. Tecno LÃ³gicas, 0, 22, 49-62.	0.3	2
131	From Biomedical Image Analysis to Biomedical Image Understanding Using Machine Learning. Advances in Bioinformatics and Biomedical Engineering Book Series, 0, , 1-26.	0.4	4
132	Content-Based Access to Medical Image Collections. Advances in Bioinformatics and Biomedical Engineering Book Series, 0, , 260-282.	0.4	0