

Alessandra Lumini

List of Publications by Year in descending order

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Version: 2024-02-01

161
papers

6,195
citations

94269

37
h-index

82410

72
g-index

169
all docs

169
docs citations

169
times ranked

4586
citing authors

#	ARTICLE	IF	CITATIONS
1	Local binary patterns variants as texture descriptors for medical image analysis. <i>Artificial Intelligence in Medicine</i> , 2010, 49, 117-125.	3.8	419
2	An improved BioHashing for human authentication. <i>Pattern Recognition</i> , 2007, 40, 1057-1065.	5.1	275
3	Fingerprint classification by directional image partitioning. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 1999, 21, 402-421.	9.7	244
4	Fingerprint Image Reconstruction from Standard Templates. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2007, 29, 1489-1503.	9.7	238
5	Survey on LBP based texture descriptors for image classification. <i>Expert Systems With Applications</i> , 2012, 39, 3634-3641.	4.4	230
6	An experimental comparison of ensemble of classifiers for bankruptcy prediction and credit scoring. <i>Expert Systems With Applications</i> , 2009, 36, 3028-3033.	4.4	228
7	Genetic programming for creating Chou's pseudo amino acid based features for submitochondria localization. <i>Amino Acids</i> , 2008, 34, 653-660.	1.2	178
8	Local binary patterns for a hybrid fingerprint matcher. <i>Pattern Recognition</i> , 2008, 41, 3461-3466.	5.1	176
9	An ensemble of K-local hyperplanes for predicting protein-protein interactions. <i>Bioinformatics</i> , 2006, 22, 1207-1210.	1.8	157
10	Identifying Bacterial Virulent Proteins by Fusing a Set of Classifiers Based on Variants of Chou's Pseudo Amino Acid Composition and on Evolutionary Information. <i>IEEE/ACM Transactions on Computational Biology and Bioinformatics</i> , 2012, 9, 467-475.	1.9	156
11	Wavelet images and Chou's pseudo amino acid composition for protein classification. <i>Amino Acids</i> , 2012, 43, 657-665.	1.2	117
12	Deep learning and transfer learning features for plankton classification. <i>Ecological Informatics</i> , 2019, 51, 33-43.	2.3	117
13	Prediction of protein structure classes by incorporating different protein descriptors into general Chou's pseudo amino acid composition. <i>Journal of Theoretical Biology</i> , 2014, 360, 109-116.	0.8	111
14	An evaluation of direct attacks using fake fingers generated from ISO templates. <i>Pattern Recognition Letters</i> , 2010, 31, 725-732.	2.6	106
15	Overview of the combination of biometric matchers. <i>Information Fusion</i> , 2017, 33, 71-85.	11.7	106
16	A local approach based on a Local Binary Patterns variant texture descriptor for classifying pain states. <i>Expert Systems With Applications</i> , 2010, 37, 7888-7894.	4.4	102
17	Artificial intelligence techniques for embryo and oocyte classification. <i>Reproductive BioMedicine Online</i> , 2013, 26, 42-49.	1.1	95
18	Combining visual and acoustic features for music genre classification. <i>Expert Systems With Applications</i> , 2016, 45, 108-117.	4.4	87

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19	Continuous versus exclusive classification for fingerprint retrieval. Pattern Recognition Letters, 1997, 18, 1027-1034.	2.6	86
20	Fusion of color spaces for ear authentication. Pattern Recognition, 2009, 42, 1906-1913.	5.1	76
21	A multi-matcher for ear authentication. Pattern Recognition Letters, 2007, 28, 2219-2226.	2.6	73
22	Random subspace for an improved BioHashing for face authentication. Pattern Recognition Letters, 2008, 29, 295-300.	2.6	68
23	Combining local, regional and global matchers for a template protected on-line signature verification system. Expert Systems With Applications, 2010, 37, 3676-3684.	4.4	67
24	Particle swarm optimization for prototype reduction. Neurocomputing, 2009, 72, 1092-1097.	3.5	63
25	A novel local on-line signature verification system. Pattern Recognition Letters, 2008, 29, 559-568.	2.6	60
26	A reliable method for cell phenotype image classification. Artificial Intelligence in Medicine, 2008, 43, 87-97.	3.8	60
27	Descriptors for image-based fingerprint matchers. Expert Systems With Applications, 2009, 36, 12414-12422.	4.4	60
28	Ensemble of Parzen window classifiers for on-line signature verification. Neurocomputing, 2005, 68, 217-224.	3.5	57
29	High performance set of PseAAC and sequence based descriptors for protein classification. Journal of Theoretical Biology, 2010, 266, 1-10.	0.8	57
30	A simple method for improving local binary patterns by considering non-uniform patterns. Pattern Recognition, 2012, 45, 3844-3852.	5.1	56
31	A clustering method for automatic biometric template selection. Pattern Recognition, 2006, 39, 495-497.	5.1	53
32	An Empirical Study of Different Approaches for Protein Classification. Scientific World Journal, The, 2014, 2014, 1-17.	0.8	53
33	Advanced methods for two-class problem formulation for on-line signature verification. Neurocomputing, 2006, 69, 854-857.	3.5	48
34	High performing ensemble of convolutional neural networks for insect pest image detection. Ecological Informatics, 2022, 67, 101515.	2.3	45
35	Ensemblator: An ensemble of classifiers for reliable classification of biological data. Pattern Recognition Letters, 2007, 28, 622-630.	2.6	42
36	Combining multiple approaches for gene microarray classification. Bioinformatics, 2012, 28, 1151-1157.	1.8	42

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37	MppS: An ensemble of support vector machine based on multiple physicochemical properties of amino acids. <i>Neurocomputing</i> , 2006, 69, 1688-1690.	3.5	41
38	Empirical tests on BioHashing. <i>Neurocomputing</i> , 2006, 69, 2390-2395.	3.5	40
39	A classifier ensemble approach for the missing feature problem. <i>Artificial Intelligence in Medicine</i> , 2012, 55, 37-50.	3.8	40
40	Detector of image orientation based on Borda Count. <i>Pattern Recognition Letters</i> , 2006, 27, 180-186.	2.6	39
41	A hybrid wavelet-based fingerprint matcher. <i>Pattern Recognition</i> , 2007, 40, 3146-3151.	5.1	38
42	Local Ternary Patterns from Three Orthogonal Planes for human action classification. <i>Expert Systems With Applications</i> , 2011, 38, 5125-5128.	4.4	38
43	Using ensemble of classifiers for predicting HIV protease cleavage sites in proteins. <i>Amino Acids</i> , 2009, 36, 409-416.	1.2	36
44	Prototype reduction techniques: A comparison among different approaches. <i>Expert Systems With Applications</i> , 2011, 38, 11820-11828.	4.4	35
45	A genetic approach for building different alphabets for peptide and protein classification. <i>BMC Bioinformatics</i> , 2008, 9, 45.	1.2	34
46	A multi-matcher system based on knuckle-based features. <i>Neural Computing and Applications</i> , 2009, 18, 87-91.	3.2	34
47	An ensemble of support vector machines for predicting the membrane protein type directly from the amino acid sequence. <i>Amino Acids</i> , 2008, 35, 573-580.	1.2	33
48	Ensemble of Multiple Pedestrian Representations. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2008, 9, 365-369.	4.7	33
49	Two-class fingerprint matcher. <i>Pattern Recognition</i> , 2006, 39, 714-716.	5.1	32
50	Combing ontologies and dipeptide composition for predicting DNA-binding proteins. <i>Amino Acids</i> , 2008, 34, 635-641.	1.2	31
51	Ensemble of on-line signature matchers based on OverComplete feature generation. <i>Expert Systems With Applications</i> , 2009, 36, 5291-5296.	4.4	31
52	A Further Step Toward an Optimal Ensemble of Classifiers for Peptide Classification, a Case Study: HIV Protease. <i>Protein and Peptide Letters</i> , 2009, 16, 163-167.	0.4	31
53	A very high performing system to discriminate tissues in mammograms as benign and malignant. <i>Expert Systems With Applications</i> , 2012, 39, 1968-1971.	4.4	31
54	Comparison of Different Image Data Augmentation Approaches. <i>Journal of Imaging</i> , 2021, 7, 254.	1.7	30

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55	FuzzyBagging: A novel ensemble of classifiers. Pattern Recognition, 2006, 39, 488-490.	5.1	29
56	RegionBoost learning for 2D+3D based face recognition. Pattern Recognition Letters, 2007, 28, 2063-2070.	2.6	29
57	Bioimage Classification with Handcrafted and Learned Features. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2019, 16, 874-885.	1.9	29
58	Convolutional Neural Networks for ATC Classification. Current Pharmaceutical Design, 2019, 24, 4007-4012.	0.9	29
59	Wavelet decomposition tree selection for palm and face authentication. Pattern Recognition Letters, 2008, 29, 343-353.	2.6	27
60	Heterogeneous bag-of-features for object/scene recognition. Applied Soft Computing Journal, 2013, 13, 2171-2178.	4.1	27
61	Ensemble based on static classifier selection for automated diagnosis of Mild Cognitive Impairment. Journal of Neuroscience Methods, 2018, 302, 42-46.	1.3	27
62	Learning morphological operators for skin detection. Journal of Artificial Intelligence and Systems, 2019, 1, 60-76.	0.7	27
63	Ensemble generation and feature selection for the identification of students with learning disabilities. Expert Systems With Applications, 2009, 36, 3896-3900.	4.4	26
64	Combining different local binary pattern variants to boost performance. Expert Systems With Applications, 2011, 38, 6209-6216.	4.4	26
65	Ensemble of multiple Palmprint representation. Expert Systems With Applications, 2009, 36, 4485-4490.	4.4	25
66	Likelihood ratio based features for a trained biometric score fusion. Expert Systems With Applications, 2011, 38, 58-63.	4.4	25
67	Wavelet selection for disease classification by DNA microarray data. Expert Systems With Applications, 2011, 38, 990-995.	4.4	25
68	Local phase quantization descriptor for improving shape retrieval/classification. Pattern Recognition Letters, 2012, 33, 2254-2260.	2.6	25
69	Evolved Feature Weighting for Random Subspace Classifier. IEEE Transactions on Neural Networks, 2008, 19, 363-366.	4.8	24
70	An ensemble of reduced alphabets with protein encoding based on grouped weight for predicting DNA-binding proteins. Amino Acids, 2009, 36, 167-175.	1.2	24
71	Protein classification using texture descriptors extracted from the protein backbone image. Journal of Theoretical Biology, 2010, 264, 1024-1032.	0.8	24
72	Combining Face and Eye Detectors in a High- Performance Face-Detection System. IEEE MultiMedia, 2012, 19, 20-27.	1.5	24

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73	Effective and precise face detection based on color and depth data. Applied Computing and Informatics, 2014, 10, 1-13.	3.7	24
74	Stochastic Selection of Activation Layers for Convolutional Neural Networks. Sensors, 2020, 20, 1626.	2.1	24
75	An ensemble of support vector machines for predicting virulent proteins. Expert Systems With Applications, 2009, 36, 7458-7462.	4.4	23
76	Subcellular localization using fluorescence imagery: Utilizing ensemble classification with diverse feature extraction strategies and data balancing. Applied Soft Computing Journal, 2013, 13, 4231-4243.	4.1	22
77	A set of descriptors for identifying the protein-drug interaction in cellular networking. Journal of Theoretical Biology, 2014, 359, 120-128.	0.8	22
78	Fair comparison of skin detection approaches on publicly available datasets. Expert Systems With Applications, 2020, 160, 113677.	4.4	22
79	Fractal Neural Network: A new ensemble of fractal geometry and convolutional neural networks for the classification of histology images. Expert Systems With Applications, 2021, 166, 114103.	4.4	22
80	A supervised method to discriminate between impostors and genuine in biometry. Expert Systems With Applications, 2009, 36, 10401-10407.	4.4	21
81	A new encoding technique for peptide classification. Expert Systems With Applications, 2011, 38, 3185-3191.	4.4	21
82	Toward a General-Purpose Heterogeneous Ensemble for Pattern Classification. Computational Intelligence and Neuroscience, 2015, 2015, 1-10.	1.1	21
83	Combining biometric matchers by means of machine learning and statistical approaches. Neurocomputing, 2015, 149, 526-535.	3.5	21
84	Ensemble of texture descriptors and classifiers for face recognition. Applied Computing and Informatics, 2017, 13, 79-91.	3.7	21
85	An empirical study on the matrix-based protein representations and their combination with sequence-based approaches. Amino Acids, 2013, 44, 887-901.	1.2	20
86	Spectrogram Classification Using Dissimilarity Space. Applied Sciences (Switzerland), 2020, 10, 4176.	1.3	20
87	Machine learning for HIV-1 protease cleavage site prediction. Pattern Recognition Letters, 2006, 27, 1537-1544.	2.6	18
88	Biohashing applied to orientation-based minutia descriptor for secure fingerprint authentication system. Electronics Letters, 2011, 47, 851.	0.5	18
89	Neonatal pain detection in videos using the iCOPEvid dataset and an ensemble of descriptors extracted from Gaussian of Local Descriptors. Applied Computing and Informatics, 2020, , .	3.7	18
90	Fusion of systems for automated cell phenotype image classification. Expert Systems With Applications, 2010, 37, 1556-1562.	4.4	17

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91	Ensemble of texture descriptors for face recognition obtained by varying feature transforms and preprocessing approaches. <i>Applied Soft Computing Journal</i> , 2017, 61, 8-16.	4.1	17
92	An advanced multi-modal method for human authentication featuring biometrics data and tokenised random numbers. <i>Neurocomputing</i> , 2006, 69, 1706-1710.	3.5	16
93	A genetic encoding approach for learning methods for combining classifiers. <i>Expert Systems With Applications</i> , 2009, 36, 7510-7514.	4.4	16
94	An enhanced subspace method for face recognition. <i>Pattern Recognition Letters</i> , 2006, 27, 76-84.	2.6	15
95	Fake fingertip generation from a minutiae template. , 2008, , .		15
96	iProStruct2D: Identifying protein structural classes by deep learning via 2D representations. <i>Expert Systems With Applications</i> , 2020, 142, 113019.	4.4	15
97	Advanced methods for two-class pattern recognition problem formulation for minutiae-based fingerprint verification. <i>Pattern Recognition Letters</i> , 2008, 29, 142-148.	2.6	14
98	Particle swarm optimization for ensembling generation for evidential k-nearest-neighbour classifier. <i>Neural Computing and Applications</i> , 2009, 18, 105-108.	3.2	14
99	Matrix representation in pattern classification. <i>Expert Systems With Applications</i> , 2012, 39, 3031-3036.	4.4	14
100	Double committee adaboost. <i>Journal of King Saud University - Science</i> , 2013, 25, 29-37.	1.6	14
101	Introduction to Local Binary Patterns: New Variants and Applications. <i>Studies in Computational Intelligence</i> , 2014, , 1-13.	0.7	14
102	Animal Sound Classification Using Dissimilarity Spaces. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8578.	1.3	14
103	Novel Features for Automated Cell Phenotype Image Classification. <i>Advances in Experimental Medicine and Biology</i> , 2010, 680, 207-213.	0.8	14
104	Random interest regions for object recognition based on texture descriptors and bag of features. <i>Expert Systems With Applications</i> , 2012, 39, 973-977.	4.4	13
105	An Empirical Study on Ensemble of Segmentation Approaches. <i>Signals</i> , 2022, 3, 341-358.	1.2	12
106	Human authentication featuring signatures and tokenised random numbers. <i>Neurocomputing</i> , 2006, 69, 858-861.	3.5	11
107	An experimental comparison of ensemble of classifiers for biometric data. <i>Neurocomputing</i> , 2006, 69, 1670-1673.	3.5	11
108	Over-complete feature generation and feature selection for biometry. <i>Expert Systems With Applications</i> , 2008, 35, 2049-2055.	4.4	11

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109	Protein classification combining surface analysis and primary structure. <i>Protein Engineering, Design and Selection</i> , 2009, 22, 267-272.	1.0	11
110	On selecting Gabor features for biometric authentication. <i>International Journal of Computer Applications in Technology</i> , 2009, 35, 23.	0.3	11
111	Multilayer descriptors for medical image classification. <i>Computers in Biology and Medicine</i> , 2016, 72, 239-247.	3.9	11
112	Ensemble of Local Phase Quantization Variants with Ternary Encoding. <i>Studies in Computational Intelligence</i> , 2014, , 177-188.	0.7	10
113	Ensemble of shape descriptors for shape retrieval and classification. <i>International Journal of Advanced Intelligence Paradigms</i> , 2014, 6, 136.	0.2	10
114	A reliable method for HIV-1 protease cleavage site prediction. <i>Neurocomputing</i> , 2006, 69, 838-841.	3.5	9
115	Orthogonal linear discriminant analysis and feature selection for micro-array data classification. <i>Expert Systems With Applications</i> , 2010, 37, 7132-7137.	4.4	9
116	Identifying splice-junction sequences by hierarchical multiclassifier. <i>Pattern Recognition Letters</i> , 2006, 27, 1390-1396.	2.6	8
117	SmartVisionApp: A framework for computer vision applications on mobile devices. <i>Expert Systems With Applications</i> , 2013, 40, 5884-5894.	4.4	8
118	Experiments of Image Classification Using Dissimilarity Spaces Built with Siamese Networks. <i>Sensors</i> , 2021, 21, 1573.	2.1	8
119	Clustering techniques for protein surfaces. <i>Pattern Recognition</i> , 2006, 39, 2370-2382.	5.1	7
120	A deformation-invariant image-based fingerprint verification system. <i>Neurocomputing</i> , 2006, 69, 2336-2339.	3.5	7
121	Generalized Needlemanâ€™Wunsch algorithm for the recognition of T-cell epitopes. <i>Expert Systems With Applications</i> , 2008, 35, 1463-1467.	4.4	7
122	Artificial intelligence systems based on texture descriptors for vaccine development. <i>Amino Acids</i> , 2011, 40, 443-451.	1.2	7
123	<title>Blind watermarking system for digital images in the wavelet domain</title>. , 2000, 3971, 524.		6
124	A multi-modal method based on the competitors of FVC2004 and on palm data combined with tokenised random numbers. <i>Pattern Recognition Letters</i> , 2008, 29, 1344-1350.	2.6	6
125	Advanced machine learning techniques for microarray spot quality classification. <i>Neural Computing and Applications</i> , 2010, 19, 471-475.	3.2	6
126	Coding of amino acids by texture descriptors. <i>Artificial Intelligence in Medicine</i> , 2010, 48, 43-50.	3.8	6

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127	Face Detection Ensemble with Methods Using Depth Information to Filter False Positives. Sensors, 2019, 19, 5242.	2.1	6
128	Towards a self-sufficient face verification system. Expert Systems With Applications, 2021, 174, 114734.	4.4	6
129	Random Bands: A novel ensemble for fingerprint matching. Neurocomputing, 2006, 69, 1702-1705.	3.5	5
130	A multi-expert approach for wavelet-based face detection. Pattern Recognition Letters, 2007, 28, 1541-1547.	2.6	5
131	Mixture of KL subspaces for relevance feedback. Multimedia Tools and Applications, 2008, 37, 189-209.	2.6	5
132	Ensemble of different local descriptors, codebook generation methods and subwindow configurations for building a reliable computer vision system. Journal of King Saud University - Science, 2014, 26, 89-100.	1.6	5
133	Image orientation detection by ensembles of Stochastic CNNs. Machine Learning With Applications, 2021, 6, 100090.	3.0	5
134	A Data Mining Approach for Predicting the Pregnancy Rate in Human Assisted Reproduction. Studies in Computational Intelligence, 2010, , 97-111.	0.7	5
135	Ensemble of Deep Learning Approaches for ATC Classification. Smart Innovation, Systems and Technologies, 2020, , 117-125.	0.5	5
136	MKL-tree: an index structure for high-dimensional vector spaces. Multimedia Systems, 2007, 12, 533-550.	3.0	4
137	Texture descriptors for generic pattern classification problems. Expert Systems With Applications, 2011, 38, 9340-9345.	4.4	4
138	A novel method for fingerprint verification that approaches the problem as a two-class pattern recognition problem. Neurocomputing, 2006, 69, 846-849.	3.5	3
139	Machine learning multi-classifiers for peptide classification. Neural Computing and Applications, 2009, 18, 185-192.	3.2	3
140	Genetic nearest feature plane. Expert Systems With Applications, 2009, 36, 838-843.	4.4	3
141	Input Decimated Ensemble based on Neighborhood Preserving Embedding for spectrogram classification. Expert Systems With Applications, 2009, 36, 11257-11261.	4.4	3
142	Ensembles of dense and dense sampling descriptors for the HEp-2 cells classification problem. Pattern Recognition Letters, 2016, 82, 28-35.	2.6	3
143	Weighted Reward&Punishment Editing. Pattern Recognition Letters, 2016, 75, 48-54.	2.6	3
144	Texture descriptors for representing feature vectors. Expert Systems With Applications, 2019, 122, 163-172.	4.4	3

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145	MKL-Tree: A Hierarchical Data Structure for Indexing Multidimensional Data. Lecture Notes in Computer Science, 2002, , 914-924.	1.0	3
146	Data Mining Based on Intelligent Systems for Decision Support Systems in Healthcare. Studies in Computational Intelligence, 2010, , 45-65.	0.7	3
147	Deep Ensembles Based on Stochastic Activations for Semantic Segmentation. Signals, 2021, 2, 820-833.	1.2	3
148	A user dependent multi-resolution approach for biometric data. International Journal of Information Technology and Management, 2012, 11, 112.	0.1	2
149	Postprocessing for Skin Detection. Journal of Imaging, 2021, 7, 95.	1.7	2
150	Closing the Performance Gap between Siamese Networks for Dissimilarity Image Classification and Convolutional Neural Networks. Sensors, 2021, 21, 5809.	2.1	2
151	Incremental Learning Techniques Within a Self-updating Approach for Face Verification in Video-Surveillance. Lecture Notes in Computer Science, 2019, , 25-37.	1.0	2
152	Cluster-Based Nearest-Neighbour Classifier and Its Application on the Lightning Classification. Journal of Computer Science and Technology, 2008, 23, 573-581.	0.9	1
153	Ensemble of Neural Networks for Automated Cell Phenotype Image Classification. Advances in Bioinformatics and Biomedical Engineering Book Series, 0, , 234-259.	0.2	1
154	Bulk Loading the MKL-Tree. Lecture Notes in Computer Science, 2003, , 119-128.	1.0	0
155	Support Vector Machines for HIV-1 Protease Cleavage Site Prediction. Lecture Notes in Computer Science, 2005, , 413-420.	1.0	0
156	An approach for improving face recognition in presence of inaccurate detection. Neurocomputing, 2006, 69, 1678-1682.	3.5	0
157	Learning in Fingerprints. , 0, , 339-364.		0
158	Ensemble of Neural Networks for Automated Cell Phenotype Image Classification. , 2012, , 793-816.		0
159	Convolutional Neural Networks for 3D Protein Classification. Intelligent Systems Reference Library, 2020, , 237-250.	1.0	0
160	Digital Recognition of Breast Cancer Using TakhisisNet. Advances in Medical Technologies and Clinical Practice Book Series, 2020, , 151-169.	0.3	0
161	Comparisons among different stochastic selections of activation layers for convolutional neural networks for health care. , 2022, , 151-164.		0