

Leonardo Franco

List of Publications by Year in descending order

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84
papers

2,064
citations

279798

23
h-index

265206

42
g-index

90
all docs

90
docs citations

90
times ranked

2166
citing authors

#	ARTICLE	IF	CITATIONS
1	Data Augmentation Techniques to Improve Metabolomic Analysis in Niemann-Pick Type C Disease. Lecture Notes in Computer Science, 2022, , 78-91.	1.3	1
2	GAN-Based Data Augmentation for Prediction Improvement Using Gene Expression Data in Cancer. Lecture Notes in Computer Science, 2022, , 28-42.	1.3	4
3	Machine learning and natural language processing (NLP) approach to predict early progression to first-line treatment in real-world hormone receptor-positive (HR+)/HER2-negative advanced breast cancer patients. European Journal of Cancer, 2021, 144, 224-231.	2.8	12
4	Editorial: AI and Multi-Omics for Rare Diseases: Challenges, Advances and Perspectives. Frontiers in Molecular Biosciences, 2021, 8, 719978.	3.5	2
5	Improving learning and generalization capabilities of the C-Mantec constructive neural network algorithm. Neural Computing and Applications, 2020, 32, 8955-8963.	5.6	3
6	Improving classification accuracy using data augmentation on small data sets. Expert Systems With Applications, 2020, 161, 113696.	7.6	104
7	Transfer learning with convolutional neural networks for cancer survival prediction using gene-expression data. PLoS ONE, 2020, 15, e0230536.	2.5	60
8	Short-Term Rainfall Forecasting with E-LSTM Recurrent Neural Networks Using Small Datasets. Lecture Notes in Computer Science, 2020, , 258-270.	1.3	0
9	A Transfer-Learning Approach to Feature Extraction from Cancer Transcriptomes with Deep Autoencoders. Lecture Notes in Computer Science, 2019, , 912-924.	1.3	7
10	Time Series Forecasting using Recurrent Neural Networks modified by Bayesian Inference in the Learning Process. , 2019, , .		2
11	Spatial and meteorological relevance in NO2 estimations: a case study in the Bay of Algeciras (Spain). Stochastic Environmental Research and Risk Assessment, 2019, 33, 801-815.	4.0	18
12	Bayesian Inference for Training of Long Short Term Memory Models in Chaotic Time Series Forecasting. Communications in Computer and Information Science, 2019, , 197-208.	0.5	2
13	Forward Noise Adjustment Scheme for Data Augmentation. , 2018, , .		74
14	Integration of Relational Databases in ethical decision-making for autonomous vehicles. , 2018, , .		0
15	Bayesian enhanced ensemble approach (BEEA) for time series forecasting. , 2018, , .		3
16	BLASSO: integration of biological knowledge into a regularized linear model. BMC Systems Biology, 2018, 12, 94.	3.0	5
17	Layer multiplexing FPGA implementation for deep back-propagation learning. Integrated Computer-Aided Engineering, 2017, 24, 171-185.	4.6	66
18	FPGA Implementation of Neurocomputational Models: Comparison Between Standard Back-Propagation and C-Mantec Constructive Algorithm. Neural Processing Letters, 2017, 46, 899-914.	3.2	5

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19	Machine learning models to search relevant genetic signatures in clinical context. , 2017, , .		3
20	Noisy Chaotic time series forecast approximated by combining Reny's entropy with Energy associated to series method: application to rainfall series. IEEE Latin America Transactions, 2017, 15, 1318-1325.	1.6	7
21	Time-series prediction with BEMCA approach: Application to short rainfall series. , 2017, , .		2
22	Classification of high dimensional data using LASSO ensembles. , 2017, , .		4
23	Deep Learning to Analyze RNA-Seq Gene Expression Data. Lecture Notes in Computer Science, 2017, , 50-59.	1.3	24
24	PREDICTION OF CARBON MONOXIDE (CO) ATMOSPHERIC POLLUTION CONCENTRATIONS USING METEROLOGICAL VARIABLES. , 2017, , .		7
25	Solving Scheduling Problems with Genetic Algorithms Using a Priority Encoding Scheme. Lecture Notes in Computer Science, 2017, , 52-61.	1.3	0
26	\$\$L_1\$\$-regularization Model Enriched with Biological Knowledge. Lecture Notes in Computer Science, 2017, , 579-590.	1.3	2
27	Advanced Online Survival Analysis Tool for Predictive Modelling in Clinical Data Science. PLoS ONE, 2016, 11, e0161135.	2.5	1
28	Supervised discretization can discover risk groups in cancer survival analysis. Computer Methods and Programs in Biomedicine, 2016, 136, 11-19.	4.7	4
29	Noisy chaotic time series forecast approximated by combining Reny's entropy with energy associated to series method: Application to rainfall series. , 2016, , .		0
30	Deep Neural Network Architecture Implementation on FPGAs Using a Layer Multiplexing Scheme. Advances in Intelligent Systems and Computing, 2016, , 79-86.	0.6	1
31	FPGA Hardware Acceleration of Monte Carlo Simulations for the Ising Model. IEEE Transactions on Parallel and Distributed Systems, 2016, 27, 2618-2627.	5.6	11
32	Efficient Implementation of the Backpropagation Algorithm in FPGAs and Microcontrollers. IEEE Transactions on Neural Networks and Learning Systems, 2016, 27, 1840-1850.	11.3	62
33	Thermal comfort estimation using a neurocomputational model. , 2016, , .		0
34	FPGA Implementation Comparison Between C-Mantec and Back-Propagation Neural Network Algorithms. Lecture Notes in Computer Science, 2015, , 197-208.	1.3	3
35	Use of q-values to Improve a Genetic Algorithm to Identify Robust Gene Signatures. Lecture Notes in Computer Science, 2015, , 199-206.	1.3	0
36	The Generalization Complexity Measure for Continuous Input Data. Scientific World Journal, The, 2014, 2014, 1-9.	2.1	2

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37	High precision FPGA implementation of neural network activation functions. , 2014, , .		17
38	Robust gene signatures from microarray data using genetic algorithms enriched with biological pathway keywords. Journal of Biomedical Informatics, 2014, 49, 32-44.	4.3	24
39	Smart sensor/actuator node reprogramming in changing environments using a neural network model. Engineering Applications of Artificial Intelligence, 2014, 30, 179-188.	8.1	23
40	FPGA Implementation of the C-Mantec Neural Network Constructive Algorithm. IEEE Transactions on Industrial Informatics, 2014, 10, 1154-1161.	11.3	36
41	Application of genetic algorithms and constructive neural networks for the analysis of microarray cancer data. Theoretical Biology and Medical Modelling, 2014, 11, S7.	2.1	24
42	Addressing critical issues in the development of an Oncology Information System. International Journal of Medical Informatics, 2013, 82, 398-407.	3.3	21
43	Implementation of the C-Mantec Neural Network Constructive Algorithm in an Arduino Uno Microcontroller. Lecture Notes in Computer Science, 2013, , 80-87.	1.3	5
44	Pattern of recurrence of early breast cancer is different according to intrinsic subtype and proliferation index. Breast Cancer Research, 2013, 15, R98.	5.0	91
45	Committee C-Mantec: A Probabilistic Constructive Neural Network. Lecture Notes in Computer Science, 2013, , 339-346.	1.3	1
46	A Constructive Neural Network to Predict Pitting Corrosion Status of Stainless Steel. Lecture Notes in Computer Science, 2013, , 88-95.	1.3	2
47	Serum protein levels following surgery in breast cancer patients: A protein microarray approach. International Journal of Oncology, 2012, 41, 2200-2206.	3.3	25
48	WIMP: Web server tool for missing data imputation. Computer Methods and Programs in Biomedicine, 2012, 108, 1247-1254.	4.7	4
49	C-Mantec: A novel constructive neural network algorithm incorporating competition between neurons. Neural Networks, 2012, 26, 130-140.	5.9	28
50	Multiclass Pattern Recognition Extension for the New C-Mantec Constructive Neural Network Algorithm. Cognitive Computation, 2010, 2, 285-290.	5.2	18
51	Missing data imputation using statistical and machine learning methods in a real breast cancer problem. Artificial Intelligence in Medicine, 2010, 50, 105-115.	6.5	381
52	Computational capabilities of multilayer committee machines. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 445103.	2.1	4
53	Extension of the Generalization Complexity Measure to Real Valued Input Data Sets. Lecture Notes in Computer Science, 2010, , 86-94.	1.3	0
54	Information encoding in the inferior temporal visual cortex: contributions of the firing rates and the correlations between the firing of neurons. Journal of Vision, 2010, 2, 425-425.	0.3	0

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55	Prediction of Subjective Affective State From Brain Activations. Journal of Neurophysiology, 2009, 101, 1294-1308.	1.8	45
56	Neural Network Architecture Selection: Can Function Complexity Help?. Neural Processing Letters, 2009, 30, 71-87.	3.2	37
57	Constructive Neural Network Algorithms for Feedforward Architectures Suitable for Classification Tasks. Studies in Computational Intelligence, 2009, , 1-23.	0.9	18
58	Active Learning Using a Constructive Neural Network Algorithm. Studies in Computational Intelligence, 2009, , 193-206.	0.9	3
59	A New Decomposition Algorithm for Threshold Synthesis and Generalization of Boolean Functions. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 3188-3196.	5.4	38
60	Active Learning Using a Constructive Neural Network Algorithm. Lecture Notes in Computer Science, 2008, , 803-811.	1.3	4
61	Neuronal selectivity, population sparseness, and ergodicity in the inferior temporal visual cortex. Biological Cybernetics, 2007, 96, 547-560.	1.3	73
62	Early Breast Cancer Prognosis Prediction and Rule Extraction Using a New Constructive Neural Network Algorithm. , 2007, , 1004-1011.		8
63	MaxSet: An Algorithm for Finding a Good Approximation for the Largest Linearly Separable Set. Lecture Notes in Computer Science, 2007, , 648-656.	1.3	0
64	Optimal prediction of mortality after abdominal aortic aneurysm repair with statistical models. Journal of Vascular Surgery, 2006, 43, 467-473.e3.	1.1	29
65	The influence of oppositely classified examples on the generalization complexity of Boolean functions. IEEE Transactions on Neural Networks, 2006, 17, 578-590.	4.2	18
66	Information in the first spike, the order of spikes, and the number of spikes provided by neurons in the inferior temporal visual cortex. Vision Research, 2006, 46, 4193-4205.	1.4	31
67	Generalization ability of Boolean functions implemented in feedforward neural networks. Neurocomputing, 2006, 70, 351-361.	5.9	22
68	A New Constructive Approach for Creating All Linearly Separable (Threshold) Functions. , 2006, , .		2
69	Neural Network Architecture Selection: Size Depends on Function Complexity. Lecture Notes in Computer Science, 2006, , 122-129.	1.3	4
70	Improvement of breast cancer relapse prediction in high risk intervals using artificial neural networks. Breast Cancer Research and Treatment, 2005, 94, 265-272.	2.5	53
71	Object Perception in Natural Scenes: Encoding by Inferior Temporal Cortex Simultaneously Recorded Neurons. Journal of Neurophysiology, 2005, 93, 1342-1357.	1.8	61
72	Object, Space, and Object-Space Representations in the Primate Hippocampus. Journal of Neurophysiology, 2005, 94, 833-844.	1.8	127

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73	The Perirhinal Cortex and Long-Term Familiarity Memory. Quarterly Journal of Experimental Psychology Section B: Comparative and Physiological Psychology, 2005, 58, 234-245.	2.8	21
74	Information encoding in the inferior temporal visual cortex: contributions of the firing rates and the correlations between the firing of neurons. Biological Cybernetics, 2004, 90, 19-32.	1.3	48
75	The use of decoding to analyze the contribution to the information of the correlations between the firing of simultaneously recorded neurons. Experimental Brain Research, 2004, 155, 370-384.	1.5	41
76	Non-glassy ground state in a long-range antiferromagnetic frustrated model in the hypercubic cell. Physica A: Statistical Mechanics and Its Applications, 2004, 332, 337-348.	2.6	7
77	An Information Theoretic Approach to the Contributions of the Firing Rates and the Correlations Between the Firing of Neurons. Journal of Neurophysiology, 2003, 89, 2810-2822.	1.8	58
78	CBA generated receptive fields implemented in a Facial expression recognition task. Lecture Notes in Computer Science, 2003, , 734-741.	1.3	0
79	Generalization properties of modular networks: implementing the parity function. IEEE Transactions on Neural Networks, 2001, 12, 1306-1313.	4.2	23
80	Generalization and Selection of Examples in Feedforward Neural Networks. Neural Computation, 2000, 12, 2405-2426.	2.2	25
81	Solving arithmetic problems using feed-forward neural networks. Neurocomputing, 1998, 18, 61-79.	5.9	14
82	A neural network facial expression recognition system using unsupervised local processing. , 0, , .		23
83	On a generalization complexity measure for Boolean functions. , 0, , .		8
84	A New Constructive Approach for Creating All Linearly Separable (Threshold) Functions. , 0, , .		1