Leonardo Trujillo

List of Publications by Year
in descending order

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156 papers	1,763 citations	394421 19 h-index	395702 33 g-index
166 all docs	166 docs citations	166 times ranked	1412 citing authors

#	Article	IF	Citations
1	Multiple Objective Genetic Algorithms for Path-planning Optimization in Autonomous Mobile Robots. Soft Computing, 2006, 11, 269-279.	3.6	111
2	Prediction of energy performance of residential buildings: A genetic programming approach. Energy and Buildings, 2015, 102, 67-74.	6.7	99
3	Automated Design of Image Operators that Detect Interest Points. Evolutionary Computation, 2008, 16, 483-507.	3.0	87
4	Visual learning of texture descriptors for facial expression recognition in thermal imagery. Computer Vision and Image Understanding, 2007, 106, 258-269.	4.7	86
5	Evolutionary-computer-assisted design of image operators that detect interest points using genetic programming. Image and Vision Computing, 2011, 29, 484-498.	4.5	59
6	Synthesis of interest point detectors through genetic programming. , 2006, , .		56
7	neat Genetic Programming: Controlling bloat naturally. Information Sciences, 2016, 333, 21-43.	6.9	43
8	EEG classification for the detection of mental states. Applied Soft Computing Journal, 2015, 32, 113-131.	7.2	42
9	Optimizing the location of ambulances in Tijuana, Mexico. Computers in Biology and Medicine, 2017, 80, 107-115.	7.0	40
10	Interest point detection through multiobjective genetic programming. Applied Soft Computing Journal, 2012, 12, 2566-2582.	7.2	34
11	Geometric Semantic Genetic Programming with Local Search. , 2015, , .		31
12	Modeling the adsorption of phenols and nitrophenols by activated carbon using genetic programming. Journal of Cleaner Production, 2017, 161, 860-870.	9.3	31
13	The EvoSpace Model for Pool-Based Evolutionary Algorithms. Journal of Grid Computing, 2015, 13, 329-349.	3.9	30
14	M3GP â€“ Multiclass Classification with GP. Lecture Notes in Computer Science, 2015, , 78-91.	1.3	29
15	Speciation in Behavioral Space for Evolutionary Robotics. Journal of Intelligent and Robotic Systems: Theory and Applications, 2011, 64, 323-351.	3.4	28
16	Using semantics in the selection mechanism in Genetic Programming: A simple method for promoting semantic diversity. , 2013, , .		28
17	Automatic modeling of a gas turbine using genetic programming: An experimental study. Applied Soft Computing Journal, 2017, 50, 212-222.	7.2	26
18	Systematic selection of tuning parameters for efficient predictive controllers using a multiobjective evolutionary algorithm. Applied Soft Computing Journal, 2015, 31, 326-338.	7.2	25

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19	Regularity and Matching Pursuit feature extraction for the detection of epileptic seizures. Journal of Neuroscience Methods, 2016, 266, 107-125.	2.5	24
20	Searching for novel clustering programs. , 2013, , .		23
21	Evolving multidimensional transformations for symbolic regression with M3GP. Memetic Computing, 2019, 11, 111-126.	4.0	21
22	Using Evolution to Learn How to Perform Interest Point Detection. , 2006, , .		20
23	EvoSpace-Interactive: A Framework to Develop Distributed Collaborative-Interactive Evolutionary Algorithms for Artistic Design. Lecture Notes in Computer Science, 2013, , 121-132.	1.3	20
24	Evolving estimators of the pointwise HÃ¶lder exponent with Genetic Programming. Information Sciences, 2012, 209, 61-79.	6.9	19
25	Evaluating the Effects of Local Search in Genetic Programming. Advances in Intelligent Systems and Computing, 2014, , 213-228.	0.6	19
26	A Genetic Programming Approach for Driving Score Calculation in the Context of Intelligent Transportation Systems. IEEE Sensors Journal, 2018, 18, 7183-7192.	4.7	18
27	Predicting per capita violent crimes in urban areas: an artificial intelligence approach. Journal of Ambient Intelligence and Humanized Computing, 2017, 8, 29-36.	4.9	17
28	Regularity based descriptor computed from local image oscillations. Optics Express, 2007, 15, 6140.	3.4	16
29	Transfer learning in constructive induction with Genetic Programming. Genetic Programming and Evolvable Machines, 2020, 21, 529-569.	2.2	16
30	EvoSpace: A Distributed Evolutionary Platform Based on the Tuple Space Model. Lecture Notes in Computer Science, 2013, , 499-508.	1.3	16
31	Autonomous Demand-Side Management system based on Monte Carlo Tree Search. , 2014, , .		15
32	Energy Consumption Forecasting Using Semantic-Based Genetic Programming with Local Search Optimizer. Computational Intelligence and Neuroscience, 2015, 2015, 1-8.	1.7	15
33	Local Search is Underused in Genetic Programming. Genetic and Evolutionary Computation, 2018, , 119-137.	1.0	15
34	Turbulent models of oil flow in a circular pipe with sudden enlargement. Applied Mathematical Modelling, 2015, 39, 6711-6724.	4.2	14
35	A Local Search Approach to Genetic Programming for Binary Classification. , 2015, , .		13
36	A comparison of fitness-case sampling methods for genetic programming. Journal of Experimental and Theoretical Artificial Intelligence, 2017, 29, 1203-1224.	2.8	13

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37	An evolutionary system for ozone concentration forecasting. Information Systems Frontiers, 2017, 19, 1123-1132.	6.4	13
38	Detecting Epilepsy in EEG Signals Using Time, Frequency and Time-Frequency Domain Features. Studies in Systems, Decision and Control, 2018, , 167-182.	1.0	13
39	Searching for Novel Classifiers. Lecture Notes in Computer Science, 2013, , 145-156.	1.3	13
40	AutoML for Feature Selection and Model Tuning Applied to Fault Severity Diagnosis in Spur Gearboxes. Mathematical and Computational Applications, 2022, 27, 6.	1.3	13
41	Increasing GP Computing Power for Free via Desktop GRID Computing and Virtualization. , 2009, , .		12
42	Predicting problem difficulty for genetic programming applied to data classification. , 2011, , .		11
43	Identification of epilepsy stages from ECoG using genetic programming classifiers. Computers in Biology and Medicine, 2013, 43, 1713-1723.	7.0	11
44	Searching for novel regression functions. , 2013, , .		11
45	Pattern recognition with composite correlation filters designed with multi-objective combinatorial optimization. Optics Communications, 2015, 338, 77-89.	2.1	11
46	Design of estimators for restoration of images degraded by haze using genetic programming. Swarm and Evolutionary Computation, 2019, 44, 49-63.	8.1	11
47	Alignment-based genetic programming for real life applications. Swarm and Evolutionary Computation, 2019, 44, 840-851.	8.1	11
48	Novelty search for automatic bug repair. , 2020, , .		11
49	Evolving genetic programming classifiers with novelty search. Information Sciences, 2016, 369, 347-367.	6.9	10
50	ECJ+HADOOP: An Easy Way to Deploy Massive Runs of Evolutionary Algorithms. Lecture Notes in Computer Science, 2016, , 91-106.	1.3	10
51	Prediction of relative position of CT slices using a computational intelligence system. Applied Soft Computing Journal, 2016, 46, 537-542.	7.2	10
52	Local search in speciation-based bloat control for genetic programming. Genetic Programming and Evolvable Machines, 2019, 20, 351-384.	2.2	10
53	Comparison of a genetic programming approach with ANFIS for power amplifier behavioral modeling and FPGA implementation. Soft Computing, 2019, 23, 2463-2481.	3.6	10
54	RANSAC-GP: Dealing with Outliers in Symbolic Regression with Genetic Programming. Lecture Notes in Computer Science, 2017, , 114-130.	1.3	9

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55	An Empirical Study of Functional Complexity as an Indicator of Overfitting in Genetic Programming. Lecture Notes in Computer Science, 2011, , 262-273.	1.3	9
56	Hybrid back-propagation training with evolutionary strategies. Soft Computing, 2014, 18, 1603-1614.	3.6	8
57	Novelty search for software improvement of a SLAM system. , 2018, , .		8
58	Semantics in Multi-objective Genetic Programming. Applied Soft Computing Journal, 2022, 115, 108143.	7.2	8
59	Towards fast approximations for the hypervolume indicator for multi-objective optimization problems by Genetic Programming. Applied Soft Computing Journal, 2022, 125, 109103.	7.2	8
60	Multiobjective design of operators that detect points of interest in images. , 2008, , .		7
61	Is there a free lunch for cloud-based evolutionary algorithms?. , 2013, , .		7
62	Prediction of expected performance for a genetic programming classifier. Genetic Programming and Evolvable Machines, 2016, 17, 409-449.	2.2	7
63	A Systematic Review of Computer Science Solutions for Addressing Violence Against Women and Children. IEEE Access, 2021, 9, 114622-114639.	4.2	7
64	A Comparison of Fitness-Case Sampling Methods for Symbolic Regression with Genetic Programming. Advances in Intelligent Systems and Computing, 2014, , 201-212.	0.6	7
65	Randomized Parameter Settings for Heterogeneous Workers in a Pool-Based Evolutionary Algorithm. Lecture Notes in Computer Science, 2014, , 702-710.	1.3	7
66	Multiclass Classification Through Multidimensional Clustering. Genetic and Evolutionary Computation, 2016, , 219-239.	1.0	7
67	GSGP-CUDA â€" A CUDA framework for Geometric Semantic Genetic Programming. SoftwareX, 2022, 18, 101085.	2.6	7
68	Behavior-based speciation for evolutionary robotics. , 2008, , .		6
69	Customizable execution environments for evolutionary computation using BOINC + virtualization. Natural Computing, 2013, 12, 163-177.	3.0	6
70	Fireworks: Evolutionary art project based on EvoSpace-interactive. , 2013, , .		6
71	Integrating Local Search within neat-GP. , 2016, , .		6
72	Nonlinear speed sensorless control of a surface-mounted PMSM based on a Thau observer. Electrical Engineering, 2018, 100, 177-193.	2.0	6

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73	Applying genetic improvement to a genetic programming library in C++. Soft Computing, 2019, 23, 11593-11609.	3.6	6
74	Comparative analysis of relocation strategies for ambulances in the city of Tijuana, Mexico. Computers in Biology and Medicine, 2020, 116, 103567.	7.0	6
75	Correction of the travel time estimation for ambulances of the red cross Tijuana using machine learning. Computers in Biology and Medicine, 2021, 137, 104798.	7.0	6
76	The estimation of hÃ¶lderian regularity using genetic programming. , 2010, , .		5
77	Genetic programming with one-point crossover and subtree mutation for effective problem solving and bloat control. Soft Computing, 2011, 15, 1551-1567.	3.6	5
78	Detecting mental states of alertness with genetic algorithm variable selection. , 2013, , .		5
79	Dynamic GP fitness cases in static and dynamic optimisation problems. , 2017, , .		5
80	Generalization in Maze Navigation Using Grammatical Evolution and Novelty Search. Lecture Notes in Computer Science, 2014, , 35-46.	1.3	5
81	Analysis and Detection of Erosion in Wind Turbine Blades. Mathematical and Computational Applications, 2022, 27, 5.	1.3	5
82	A comparative study of an evolvability indicator and a predictor of expected performance for genetic programming. , 2012, , .		4
83	Epilepsy Ictal Stage Identification by 0-1 Test of Chaos*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 126-131.	0.4	4
84	Seizure states identification in experimental epilepsy using gabor atom analysis. Journal of Neuroscience Methods, 2015, 241, 121-131.	2.5	4
85	The training set and generalization in grammatical evolution for autonomous agent navigation. Soft Computing, 2017, 21, 4399-4416.	3.6	4
86	Stochastic Semantic-Based Multi-objective Genetic Programming Optimisation for Classification of Imbalanced Data. Lecture Notes in Computer Science, 2017, , 261-272.	1.3	4
87	Untapped Potential of Genetic Programming: Transfer Learning and Outlier Removal. Genetic and Evolutionary Computation, 2019, , 193-207.	1.0	4
88	EEG Feature Extraction Using Genetic Programming for the Classification of Mental States. Algorithms, 2020, 13, 221.	2.1	4
89	Modelling the vibration response of a gas turbine using machine learning. Expert Systems, 2020, 37, e12560.	4.5	4
90	On the analysis of hyper-parameter space for a genetic programming system with iterated F-Race. Soft Computing, 2020, 24, 14757-14770.	3.6	4

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91	A Genetic Programming Approach to the Design of Interest Point Operators. Studies in Computational Intelligence, 2009, , 49-65.	0.9	4
92	Locality in Continuous Fitness-Valued Cases and Genetic Programming Difficulty. Advances in Intelligent Systems and Computing, 2013, , 41-56.	0.6	4
93	Novelty Search for the Synthesis of Current Followers. Computacion Y Sistemas, 2016, 20, .	0.3	4
94	An Analysis of Geometric Semantic Crossover: A Computational Geometry Approach. , 2016, , .		4
95	Advances in Adaptive Composite Filters for Object Recognition. , 0, , .		3
96	A behavior-based analysis of modal problems. , 2013, , .		3
97	Deploying massive runs of evolutionary algorithms with ECJ and Hadoop: Reducing interest points required for face recognition. International Journal of High Performance Computing Applications, 2018, 32, 706-720.	3.7	3
98	How Am I Driving? Using Genetic Programming to Generate Scoring Functions for Urban Driving Behavior. Mathematical and Computational Applications, 2018, 23, 19.	1.3	3
99	Classification and Assessment of the Patelar Reflex Response through Biomechanical Measures. Journal of Healthcare Engineering, 2019, 2019, 1-7.	1.9	3
100	SOAP: Semantic outliers automatic preprocessing. Information Sciences, 2020, 526, 86-101.	6.9	3
101	A Novel Approach For Search-Based Program Repair. IEEE Software, 2021, 38, 36-42.	1.8	3
102	Evolutionary feature selection for probabilistic object recognition, novel object detection and object saliency estimation using GMMs. , 2007, , .		3
103	Demand-Side Management: Optimising Through Differential Evolution Plug-in Electric Vehicles to Partially Fulfil Load Demand. Studies in Computational Intelligence, 2017, , 155-174.	0.9	3
104	Backpropagation learning with a (1+1) ES. , 2010, , .		2
105	How many neurons?. , 2011, , .		2
106	An image analysis procedure for measuring the surface tension of pendant micro-drops. Journal of Computational Methods in Sciences and Engineering, 2012, 12, 371-382.	0.2	2
107	EvoSpace-i. , 2013, , .		2
108	Facial recognition using composite correlation filters designed with multiobjective combinatorial optimization. Proceedings of SPIE, 2014, , .	0.8	2

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109	Solving the ambulance location problem in Tijuana-Mexico using a continuous location model. , 2015, , .		2
110	Genetic Programming. , 2016, , .		2
111	A Machine Learning Approach for the Integration of miRNA-Target Predictions. , 2016, , .		2
112	Towards the development of a complete GP system on an FPGA using geometric semantic operators. , 2017, , .		2
113	Local Search Approach to Genetic Programming for RF-PAs Modeling Implemented in FPGA. Studies in Computational Intelligence, 2017, , 67-88.	0.9	2
114	High-Level Synthesis through metaheuristics and LUTs optimization in FPGA devices. AI Communications, 2017, 30, 151-168.	1.2	2
115	Modeling Uncertainty for the Double Standard Model Using a Fuzzy Inference System. Frontiers in Robotics and AI, 2018, 5, 31.	3.2	2
116	Pool-Based Genetic Programming Using Evospace, Local Search and Bloat Control. Mathematical and Computational Applications, 2019, 24, 78.	1.3	2
117	Estimating Classifier Performance with Genetic Programming. Lecture Notes in Computer Science, 2011, , 274-285.	1.3	2
118	Modular Neural Networks with Fuzzy Response Integration for Signature Recognition. Studies in Computational Intelligence, 2009, , 81-91.	0.9	2
119	On the Use of Dynamic GP Fitness Cases in Static and Dynamic Optimisation Problems. Lecture Notes in Computer Science, 2018, , 72-87.	1.3	2
120	Prepare for Ludicrous Speed: Marker-based Instantaneous Binocular Rolling Shutter Localization. IEEE Transactions on Visualization and Computer Graphics, 2022, 28, 2201-2211.	4.4	2
121	Optimization of the hÃ¶lder image descriptor using a genetic algorithm. , 2010, , .		1
122	Feature Extraction and Classification of EEG Signals. The Use of a Genetic Algorithm for an Application on Alertness Prediction. , 2014, , 191-220.		1
123	Restoration of degraded images using genetic programming. Proceedings of SPIE, 2016, , .	0.8	1
124	Random Tree Generator for an FPGA-based Genetic Programming System. , 2016, , .		1
125	Coefficient extraction for MPM using LSE, ORLS and SLS applied to RF-PA modeling. , 2017, , .		1
126	Automatic Random Tree Generator on FPGA. Studies in Computational Intelligence, 2017, , 89-104.	0.9	1

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127	Stock index return forecasting: semantics-based genetic programming with local search optimiser. International Journal of Bio-Inspired Computation, 2017, 10, 159.	0.9	1
128	A Scalable Genetic Programming Approach to Integrate miRNA-Target Predictions: Comparing Different Parallel Implementations of M3GP. Complexity, 2018, 2018, 1-13.	1.6	1
129	Filtering Outliers in One Step with Genetic Programming. Lecture Notes in Computer Science, 2018, , 209-222.	1.3	1
130	Development of Multiobjective High-Level Synthesis for FPGAs. Scientific Programming, 2020, 2020, 1-25.	0.7	1
131	Towards an automatic coding of observational studies: Coding neurofeedback therapies of children with autism. Expert Systems, 2020, 37, e12572.	4.5	1
132	Environmental Fluid Mechanics: Applications to Weather Forecast and Climate Change. Environmental Science and Engineering, 2014, , 3-36.	0.2	1
133	Classification of EEG Signals by an Evolutionary Algorithm. Studies in Computational Intelligence, 2014, , 133-153.	0.9	1
134	Profiting from Several Recommendation Algorithms Using a Scalable Approach. Studies in Computational Intelligence, 2017, , 357-375.	0.9	1
135	Unlabeled multi-target regression with genetic programming. , 2020, , .		1
136	Signature Recognition with a Hybrid Approach Combining Modular Neural Networks and Fuzzy Logic for Response Integration. Studies in Computational Intelligence, 2009, , 185-201.	0.9	1
137	Improvement of the Backpropagation Algorithm Using (1+1) Evolutionary Strategies. Studies in Computational Intelligence, 2010, , 287-302.	0.9	1
138	Analysis and Classification of Epilepsy Stages with Genetic Programming. Advances in Intelligent Systems and Computing, 2013, , 57-70.	0.6	1
139	AnÃ¡lisis DinÃ¡mico Estructural de SatÃ©lite Educativo CanSat. Computacion Y Sistemas, 2018, 22, .	0.3	1
140	Is k Nearest Neighbours Regression Better Than GP?. Lecture Notes in Computer Science, 2020, , 244-261.	1.3	1
141	General controllers evolved through grammatical evolution with a divergent search. , 2020, , .		1
142	Facial Expression Recognition in Nonvisual Imagery. , 2009, , 213-239.		1
143	Development of Modular Neural Networks with Fuzzy Logic Response Integration for Signature Recognition. Fuzzy Information and Engineering, 2009, 1, 345-355.	1.7	0
144	Design of composite correlation filters for object recognition using multi-objective combinatorial optimization. , 2013, , .		0

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145	Modeling micro-channel plates as astronomical detectors of UV radiation. , 2016, , .		0
146	Special Issue on Integrating numerical optimization methods with genetic programming. Genetic Programming and Evolvable Machines, 2020, 21, 469-470.	2.2	0
147	Random Selection of Parameters in Asynchronous Pool-Based Evolutionary Algorithms. , 2021, , .		0
148	MULTIPLE OBJECTIVE GENETIC ALGORITHMS FOR AUTONOMOUS MOBILE ROBOT PATH PLANNING OPTIMIZATION. , 2004, , .		0
149	Detecting Scale-Invariant Regions Using Evolved Image Operators. Studies in Computational Intelligence, 2009, , 21-40.	0.9	0
150	Disparity Map Estimation by Combining Cost Volume Measures Using Genetic Programming. Advances in Intelligent Systems and Computing, 2013, , 71-86.	0.6	0
151	Comparison of Local Feature Extraction Paradigms Applied to Visual SLAM. Computacion Y Sistemas, 2016, 20, .	0.3	0
152	Dow Jones Index Return Forecasting: Semantics Based Genetic Programming with Local Search Optimizer. International Journal of Bio-Inspired Computation, 2017, 10, 1.	0.9	0
153	Coefficients Estimation of MPM Through LSE, ORLS and SLS for RF-PA Modeling and DPD. Studies in Computational Intelligence, 2018, , 239-262.	0.9	0
154	Augmenting the LSA Technique to Evaluate Ubicomp Environments. Studies in Computational Intelligence, 2018, , 45-64.	0.9	0
155	Estimation of the 3D Pose of an Object Using Correlation Filters and CMA-ES. Lecture Notes in Computer Science, 2018, , 506-520.	1.3	0
156	Optimization of PPF Control of a Building-like Structure for Vibration Control. Computacion Y Sistemas, 2018, 22, .	0.3	0