Roberto Pietrantuono

List of Publications by Year
in descending order

76 papers	1,207 citations	623734 14 h-index	552781 26 g-index
76 all docs	76 docs citations	76 times ranked	682 citing authors

#	ARTICLE	IF	CITATIONS
1	DevOpRET: Continuous reliability testing in DevOps. Journal of Software: Evolution and Process, 2023, 35, e2298.	1.6	9
2	A Comparative Analysis of Software Aging in Image Classifiers on Cloud and Edge. IEEE Transactions on Dependable and Secure Computing, 2023, 20, 563-573.	5.4	8
3	Software micro-rejuvenation for Android mobile systems. Journal of Systems and Software, 2022, 186, 111181.	4.5	7
4	Adaptive Test Case Allocation, Selection and Generation Using Coverage Spectrum and Operational Profile. IEEE Transactions on Software Engineering, 2021, 47, 881-898.	5.6	9
5	Operation is the Hardest Teacher: Estimating DNN Accuracy Looking for Mispredictions. , 2021, , .		6
6	Memory Degradation Analysis in Private and Public Cloud Environments. , 2021, , .		0
7	A survey on software aging and rejuvenation in the cloud. Software Quality Journal, 2020, 28, 7-38.	2.2	14
8	On the testing resource allocation problem: Research trends and perspectives. Journal of Systems and Software, 2020, 161, 110462.	4.5	9
9	Testing microservice architectures for operational reliability. Software Testing Verification and Reliability, 2020, 30, e1725.	2.0	9
10	Reliability assessment of service-based software under operational profile uncertainty. Reliability Engineering and System Safety, 2020, 204, 107193.	8.9	17
11	A comprehensive study on software aging across android versions and vendors. Empirical Software Engineering, 2020, 25, 3357-3395.	3.9	14
12	SAR Handbook Chapter: Measurements-based aging analysis. , 2020, , .		1
13	Software Aging in Image Classification Systems on Cloud and Edge. , 2020, , .		7
14	Towards Continuous Software Reliability Testing in DevOps. , 2019, , .		15
15	A Configurable Software Aging Detection and Rejuvenation Agent for Android. , 2019, , .		9
16	A Hybrid Framework for Web Services Reliability and Performance Assessment. , 2019, , .		5
17	Hybrid Is Better: Why and How Test Coverage and Software Reliability Can Benefit Each Other. Lecture Notes in Business Information Processing, 2019, , 25-38.	1.0	1
18	Multiobjective Testing Resource Allocation Under Uncertainty. IEEE Transactions on Evolutionary Computation, 2018, 22, 347-362.	10.0	11

#	Article	IF	Citations
19	Aging-related performance anomalies in the apache storm stream processing system. Future Generation Computer Systems, 2018, 86, 975-994.	7.5	23
20	Robotics Software Engineering and Certification: Issues and Challenges. , 2018, , .		7
21	Software Aging and Rejuvenation in the Cloud: A Literature Review. , 2018, , .		4
22	Run-Time Reliability Estimation of Microservice Architectures. , 2018, , .		15
23	Hybrid Simulation and Test of Vessel Traffic Systems on the Cloud. IEEE Access, 2018, 6, 47273-47287.	4.2	5
24	Probabilistic Sampling-Based Testing for Accelerated Reliability Assessment. , 2018, , .		5
25	A software quality framework for large-scale mission-critical systems engineering. Information and Software Technology, 2018, 102, 100-116.	4.4	14
26	Search-based optimization for the testing resource allocation problem. , 2018, , .		2
27	Optimized task allocation on private cloud for hybrid simulation of large-scale critical systems. Future Generation Computer Systems, 2017, 74, 104-118.	7.5	15
28	Debuggingâ€workflowâ€aware software reliability growth analysis. Software Testing Verification and Reliability, 2017, 27, e1638.	2.0	15
29	Adaptive Coverage and Operational Profile-Based Testing for Reliability Improvement. , 2017, , .		13
30	Prediction of the Testing Effort for the Safety Certification of Open-Source Software: A Case Study on a Real-Time Operating System. , 2016, , .		2
31	On Adaptive Sampling-Based Testing for Software Reliability Assessment. , 2016, , .		10
32	Software Aging Analysis of the Android Mobile OS. , 2016, , .		35
33	Reproducibility of Software Bugs. Springer Series in Reliability Engineering, 2016, , 551-565.	0.5	3
34	How do bugs surface? A comprehensive study on the characteristics of software bugs manifestation. Journal of Systems and Software, 2016, 113, 27-43.	4.5	35
35	RELAI Testing: A Technique to Assess and Improve Software Reliability. IEEE Transactions on Software Engineering, 2016, 42, 452-475.	5.6	21
36	Using multi-objective metaheuristics for the optimal selection of positioning systems. Soft Computing, 2016, 20, 2641-2664.	3.6	5

#	Article	IF	Citations
37	SysML-based and Prolog-supported FMEA. , 2015, , .		7
38	Preventing recurrence of industrial control system accident using assurance case. , 2015, , .		0
39	Sampling UAV Most Informative Diagnostic Signals. , 2015, , .		0
40	The software aging and rejuvenation repository: Http://openscience.us/repo/software-aging/. , 2015, , .		5
41	Prioritizing Correction of Static Analysis Infringements for Cost-Effective Code Sanitization. , 2015, , .		2
42	Performance of Defect Prediction in Rapidly Evolving Software. , 2015, , .		3
43	Emulating Environment-Dependent Software Faults. , 2015, , .		3
44	Defect analysis in mission-critical software systems: a detailed investigation. Journal of Software: Evolution and Process, 2015, 27, 22-49.	1.6	10
45	State-based robustness testing of IaaS cloud platforms. , 2015, , .		8
46	Model-in-the-Loop Testing of a Railway Interlocking System. Communications in Computer and Information Science, 2015, , 375-389.	0.5	10
47	Reproducibility of Environment-Dependent Software Failures: An Experience Report. , 2014, , .		21
48	Dynamic test planning: a study in an industrial context. International Journal on Software Tools for Technology Transfer, 2014, 16, 593-607.	1.9	13
49	A survey of software aging and rejuvenation studies. ACM Journal on Emerging Technologies in Computing Systems, 2014, 10, 1-34.	2.3	153
50	On the Impact of Debugging on Software Reliability Growth Analysis: A Case Study. Lecture Notes in Computer Science, 2014, , 461-475.	1.3	7
51	A measurement€based ageing analysis of the JVM. Software Testing Verification and Reliability, 2013, 23, 199-239.	2.0	25
52	Predicting aging-related bugs using software complexity metrics. Performance Evaluation, 2013, 70, 163-178.	1.2	69
53	Requirements engineering in rail transit production: An experience report. , 2013, , .		0
54	A learning-based method for combining testing techniques. , 2013, , .		14

#	Article	IF	Citations
55	Performance degradation analysis of a supercomputer. , 2013, , .		4
56	Engineering Air Traffic Control Systems with a Model-Driven Approach. IEEE Software, 2013, 30, 42-48.	1.8	13
57	Analysis and Prediction of Mandelbugs in an Industrial Software System. , 2013, , .		25
58	Fault triggers in open-source software: An experience report. , 2013, , .		58
59	Combining Operational and Debug Testing for Improving Reliability. IEEE Transactions on Reliability, 2013, 62, 408-423.	4.6	26
60	Testing techniques selection based on ODC fault types and software metrics. Journal of Systems and Software, 2013, 86, 1613-1637.	4.5	21
61	On the Aging Effects Due to Concurrency Bugs: A Case Study on MySQL. , 2012, , .		15
62	Integrating MDT in an Industrial Process in the Air Traffic Control Domain. , 2012, , .		4
63	Workload Characterization for Software Aging Analysis. , 2011, , .		29
64	Architecture-Based Criticality Assessment of Software Systems. , 2011, , .		0
65	A Case Study on State-Based Robustness Testing of an Operating System for the Avionic Domain. Lecture Notes in Computer Science, 2011, , 213-227.	1.3	5
66	Error detection framework for complex software systems. , 2011, , .		5
67	Bug Localization in Test-Driven Development. Advances in Software Engineering, 2011, 2011, 1-18.	0.6	6
68	Software Aging and Rejuvenation: Where We Are and Where We Are Going. , 2011, , .		49
69	Criticality-Driven Component Integration in Complex Software Systems. Lecture Notes in Computer Science, 2011, , 452-466.	1.3	1
70	Software Reliability and Testing Time Allocation: An Architecture-Based Approach. IEEE Transactions on Software Engineering, 2010, 36, 323-337.	5.6	70
71	Supporting ubiquitous location information in interworking 3G and wireless networks. Communications of the ACM, 2010, 53, 116-123.	4.5	19
72	Software Aging Analysis of the Linux Operating System. , 2010, , .		86

5

#	Article	IF	Citations
73	Is software aging related to software metrics?. , 2010, , .		30
74	A failure analysis of data distribution middleware in a mission-critical system for air traffic control. , 2009, , .		2
75	Component airbag. , 2007, , .		0
76	Investigation of failure causes in workload-driven reliability testing. , 2007, , .		9