Lars Grunske

List of Publications by Year
in descending order

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98 papers	2,900 citations	279487 23 h-index	276539 41 g-index
102 all docs	102 docs citations	102 times ranked	1681 citing authors

#	Article	IF	Citations
1	Inputs From Hell:. IEEE Transactions on Software Engineering, 2022, 48, 1138-1153.	4.3	11
2	VUDENC: Vulnerability Detection with Deep Learning on a Natural Codebase for Python. Information and Software Technology, 2022, 144, 106809.	3.0	33
3	A systematic literature review on counterexample explanation. Information and Software Technology, 2022, 145, 106800.	3.0	5
4	BeDivFuzz. , 2022, , .		12
5	A comprehensive empirical evaluation of generating test suites for mobile applications with diversity. Information and Software Technology, 2021, 130, 106436.	3.0	3
6	History-based Model Repair Recommendations. ACM Transactions on Software Engineering and Methodology, 2021, 30, 1-46.	4.8	14
7	Quantitative Verification of Stochastic Regular Expressions. Fundamenta Informaticae, 2021, 179, 135-163.	0.3	0
8	Concolic program repair. , 2021, , .		15
9	Evolutionary Grammar-Based Fuzzing. Lecture Notes in Computer Science, 2020, , 105-120.	1.0	12
10	MoFuzz. , 2020, , .		7
11	HyDiff. , 2020, , .		22
12	Bet and Run for Test Case Generation. Lecture Notes in Computer Science, 2020, , 204-219.	1.0	0
13	Counterexample Interpretation for Contract-Based Design. Lecture Notes in Computer Science, 2020, , 99-114.	1.0	4
14	The Java Pathfinder Workshop 2019. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2020, 45, 20-22.	0.5	0
15	Learning from Evolution for Evolution. , 2019, , 255-308.		1
16	An evaluation of pure spectrumâ€based fault localization techniques for largeâ€scale software systems. Software - Practice and Experience, 2019, 49, 1197-1224.	2.5	26
17	Challenges for Verifying and Validating Scientific Software in Computational Materials Science. , 2019, , .		6
18	Does Diversity Improve the Test Suite Generation for Mobile Applications?. Lecture Notes in Computer Science, 2019, , 58-74.	1.0	8

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19	Complete Shadow Symbolic Execution with Java PathFinder. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2019, 44, 15-16.	0.5	3
20	Supporting semi-automatic co-evolution of architecture and fault tree models. Journal of Systems and Software, 2018, 142, 115-135.	3.3	16
21	Hora: Architecture-aware online failure prediction. Journal of Systems and Software, 2018, 137, 669-685.	3.3	39
22	Guest editorial: advanced topics in automated software engineering. Automated Software Engineering, 2018, 25, 743-744.	2.2	1
23	Mapping the Effectiveness of Automated Test Suite Generation Techniques. IEEE Transactions on Reliability, 2018, 67, 771-785.	3.5	18
24	Semantic program repair using a reference implementation. , 2018, , .		48
25	How Much Event Data Is Enough? A Statistical Framework for Process Discovery. Lecture Notes in Computer Science, 2018, , 239-256.	1.0	19
26	Analysing the fitness landscape of search-based software testing problems. Automated Software Engineering, 2017, 24, 603-621.	2.2	35
27	A Critical Evaluation of Spectrum-Based Fault Localization Techniques on a Large-Scale Software System. , 2017, , .		46
28	Online Workload Forecasting. , 2017, , 529-553.		12
29	Software Engineering for Self-Adaptive Systems: Research Challenges in the Provision of Assurances. Lecture Notes in Computer Science, 2017, , 3-30.	1.0	49
30	Perpetual Assurances for Self-Adaptive Systems. Lecture Notes in Computer Science, 2017, , 31-63.	1.0	37
31	An Architecture-Aware Approach to Hierarchical Online Failure Prediction. , 2016, , .		14
32	A learning-to-rank based fault localization approach using likely invariants. , 2016, , .		104
33	Lightweight Adaptive Filtering for Efficient Learning and Updating of Probabilistic Models. , 2015, , .		24
34	Specifying model transformations by direct manipulation using concrete visual notations and interactive recommendations. Journal of Visual Languages and Computing, 2015, 28, 195-211.	1.8	14
35	Aligning Qualitative, Real-Time, and Probabilistic Property Specification Patterns Using a Structured English Grammar. IEEE Transactions on Software Engineering, 2015, 41, 620-638.	4.3	88
36	Test data generation with a Kalman filter-based adaptive genetic algorithm. Journal of Systems and Software, 2015, 103, 343-352.	3.3	30

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37	CoWolf â€“ A Generic Framework for Multi-view Co-evolution and Evaluation of Models. Lecture Notes in Computer Science, 2015, , 34-40.	1.0	4
38	Evaluating probabilistic models with uncertain model parameters. Software and Systems Modeling, 2014, 13, 1395-1415.	2.2	16
39	Increasing Dependability of Component-Based Software Systems by Online Failure Prediction (Short) Tj ETQq1 1 0.784314 rgBT /Ove		4
40	Choosing the Appropriate Forecasting Model for Predictive Parameter Control. Evolutionary Computation, 2014, 22, 319-349.	2.3	11
41	Using Models at Runtime to Address Assurance for Self-Adaptive Systems. Lecture Notes in Computer Science, 2014, , 101-136.	1.0	63
42	metaFMEA-A Framework for Reusable FMEAs. Lecture Notes in Computer Science, 2014, , 110-122.	1.0	3
43	Dimensions and Metrics for Evaluating Recommendation Systems. , 2014, , 245-273.		41
44	Software Architecture Optimization Methods: A Systematic Literature Review. IEEE Transactions on Software Engineering, 2013, 39, 658-683.	4.3	221
45	An approach to software reliability prediction based on time series modeling. Journal of Systems and Software, 2013, 86, 1923-1932.	3.3	87
46	Model-based performance analysis of software architectures under uncertainty. , 2013, , .		25
47	A comparison of machine learning algorithms for proactive hard disk drive failure detection. , 2013, , .		32
48	Tool support for automatic model transformation specification using concrete visualisations. , 2013, , .		2
49	Statistical detection of QoS violations based on CUSUM control charts. , 2012, , .		6
50	An Approach to Forecasting QoS Attributes of Web Services Based on ARIMA and GARCH Models. , 2012, , .		98
51	Architecture-driven reliability optimization with uncertain model parameters. Journal of Systems and Software, 2012, 85, 2340-2355.	3.3	34
52	An automated approach to forecasting QoS attributes based on linear and non-linear time series modeling. , 2012, , .		49
53	Using Automated Control Charts for the Runtime Evaluation of QoS Attributes. , 2011, , .		7
54	Architecture-based reliability evaluation under uncertainty. , 2011, , .		30

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55	Dynamic QoS Management and Optimization in Service-Based Systems. IEEE Transactions on Software Engineering, 2011, 37, 387-409.	4.3	290
56	Monitoring of Probabilistic Timed Property Sequence Charts. Software - Practice and Experience, 2011, 41, 841-866.	2.5	24
57	Experience with fault injection experiments for FMEA. Software - Practice and Experience, 2011, 41, 1233-1258.	2.5	31
58	An effective sequential statistical test for probabilistic monitoring. Information and Software Technology, 2011, 53, 190-199.	3.0	16
59	Reliability-driven deployment optimization for embedded systems. Journal of Systems and Software, 2011, 84, 835-846.	3.3	35
60	PSPWizard. , 2011, , .		6
61	Capture and reuse of composable failure patterns. International Journal of Critical Computer-Based Systems, 2010, 1, 128.	0.1	5
62	Timed Property Sequence Chart. Journal of Systems and Software, 2010, 83, 371-390.	3.3	23
63	Generalizable safety annotations for specification of failure patterns. Software - Practice and Experience, 2010, 40, 453-483.	2.5	4
64	First International Workshop on <u>Qu</u>antitative St<u>o</u>chastic Models in the <u>V</u>erific<u>a</u>tion and <u>D</u>es<u>i</u>gn of <u>S</u>oftware Systems (QUOVADIS) Tj ETQq0 0 0 rgBT /Overlock 10 Tf		1
65	An Efficient Method for Architecture-Based Reliability Evaluation for Evolving Systems with Changing Parameters. , 2010, , .		11
66	Architecture-Driven Reliability and Energy Optimization for Complex Embedded Systems. Lecture Notes in Computer Science, 2010, , 52-67.	1.0	28
67	A Formal Syntax for Probabilistic Timed Property Sequence Charts. , 2009, , .		10
68	Monitoring probabilistic properties. , 2009, , .		30
69	Safety Analysis of an Airbag System Using Probabilistic FMEA and Probabilistic Counterexamples. , 2009, , .		41
70	Let the Ants Deploy Your Software - An ACO Based Deployment Optimisation Strategy. , 2009, , .		21
71	ArcheOpterix: An extendable tool for architecture optimization of AADL models. , 2009, , .		127
72	Timed Simulation of Extended AADL-Based Architecture Specifications with Timed Abstract State Machines. Lecture Notes in Computer Science, 2009, , 101-115.	1.0	3

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73	Quantitative risk-based security prediction for component-based systems with explicitly modeled attack profiles. Journal of Systems and Software, 2008, 81, 1327-1345.	3.3	48
74	Timed Behavior Trees for Failure Mode and Effects Analysis of time-critical systems. Journal of Systems and Software, 2008, 81, 2163-2182.	3.3	26
75	Defining the abstract syntax of visual languages with advanced graph grammarsâ€"A case study based on behavior trees. Journal of Visual Languages and Computing, 2008, 19, 343-379.	1.8	17
76	A Comparative Study into Architecture-Based Safety Evaluation Methodologies Using AADL's Error Annex and Failure Propagation Models. , 2008, , .		32
77	Specification patterns for probabilistic quality properties. , 2008, , .		101
78	State Space Reduction Techniques for Component Interfaces. Lecture Notes in Computer Science, 2008, , 130-145.	1.0	4
79	Timed Behavior Trees and Their Application to Verifying Real-Time Systems. Proceedings / Australian Software Engineering Conference, 2007, , .	0.0	17
80	Probabilistic Model-Checking Support for FMEA. , 2007, , .		46
81	Evaluating Dependability Attributes of Component-Based Specifications. , 2007, , .		2
82	Early quality prediction of component-based systems â€“ A generic framework. Journal of Systems and Software, 2007, 80, 678-686.	3.3	48
83	Systems engineering, test and evaluation: maximising customer satisfaction. Innovations in Systems and Software Engineering, 2007, 3, 103-104.	1.6	0
84	Probabilistic Timed Behavior Trees. Lecture Notes in Computer Science, 2007, , 156-175.	1.0	15
85	An Outline of an Architecture-Based Method for Optimizing Dependability Attributes of Software-Intensive Systems. Lecture Notes in Computer Science, 2007, , 188-209.	1.0	15
86	Performance Prediction of Component-Based Systems. Lecture Notes in Computer Science, 2006, , 169-192.	1.0	50
87	EVOLUTIONARY ALGORITHMS FOR SAFETY-COST TRADE-OFFS IN CONTROL SYSTEM DESIGN. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 249-254.	0.4	0
88	Identifying "good" architectural design alternatives with multi-objective optimization strategies. , 2006, , .		40
89	Towards an Integration of Standard Component-Based Safety Evaluation Techniques with SaveCCM. Lecture Notes in Computer Science, 2006, , 199-213.	1.0	19
90	Evolutionary algorithms for safety-cost trade-offs in control system design. , 2006, 39, 247-252.		1

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91	CONTINUOUS ASSESSMENT OF DESIGNS AND RE-USE IN MODEL-BASED SAFETY ANALYSIS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 74-79.	0.4	1
92	Model-Driven Safety Evaluation with State-Event-Based Component Failure Annotations. Lecture Notes in Computer Science, 2005, , 33-48.	1.0	53
93	An Automated Dependability Analysis Method for COTS-Based Systems. Lecture Notes in Computer Science, 2005, , 178-190.	1.0	8
94	Automatic generation of analyzable failure propagation models from component-level failure annotations. , 2005, , .		26
95	A Graphical Specification of Model Transformations with Triple Graph Grammars. Lecture Notes in Computer Science, 2005, , 284-298.	1.0	18
96	Specification and Evaluation of Safety Properties in a Component-Based Software Engineering Process. Lecture Notes in Computer Science, 2005, , 249-274.	1.0	9
97	Behavioral Types for Embedded Software â€“ A Survey. Lecture Notes in Computer Science, 2005, , 82-106.	1.0	3
98	Formalizing Architectural Refactorings as Graph Transformation Systems. , 0, , .		19