Dave Towey

List of Publications by Year in descending order

106 papers	1,653 citations	471061 17 h-index	360668 35 g-index
107 all docs	107 docs citations	107 times ranked	697 citing authors

#	Article	IF	Citations
1	Metamorphic Testing. ACM Computing Surveys, 2019, 51, 1-27.	16.1	234
2	How Effectively Does Metamorphic Testing Alleviate the Oracle Problem?. IEEE Transactions on Software Engineering, 2014, 40, 4-22.	4.3	162
3	RESTRICTED RANDOM TESTING: ADAPTIVE RANDOM TESTING BY EXCLUSION. International Journal of Software Engineering and Knowledge Engineering, 2006, 16, 553-584.	0.6	68
4	Metamorphic Relations for Enhancing System Understanding and Use. IEEE Transactions on Software Engineering, 2020, 46, 1120-1154.	4.3	66
5	Metamorphic Testing for Cybersecurity. Computer, 2016, 49, 48-55.	1.2	64
6	Metamorphic Testing: Testing the Untestable. IEEE Software, 2020, 37, 46-53.	2.1	59
7	Test case prioritization for object-oriented software: An adaptive random sequence approach based on clustering. Journal of Systems and Software, 2018, 135, 107-125.	3.3	58
8	A revisit of three studies related to random testing. Science China Information Sciences, 2015, 58, 1-9.	2.7	56
9	A Survey on Adaptive Random Testing. IEEE Transactions on Software Engineering, 2021, 47, 2052-2083.	4.3	55
10	Restricted Random Testing. Lecture Notes in Computer Science, 2002, , 321-330.	1.0	50
11	Forgetting Test Cases. , 2006, , .		39
12	Search-based QoS ranking prediction for web services in cloud environments. Future Generation Computer Systems, 2015, 50, 111-126.	4.9	39
13	A metamorphic testing approach for supporting program repair without the need for a test oracle. Journal of Systems and Software, 2017, 126, 127-140.	3.3	30
14	A Similarity Metric for the Inputs of OO Programs and Its Application in Adaptive Random Testing. IEEE Transactions on Reliability, 2017, 66, 373-402.	3.5	25
15	A Web services vulnerability testing approach based on combinatorial mutation and SOAP message mutation. Service Oriented Computing and Applications, 2014, 8, 1-13.	1.3	24
16	An empirical comparison of commercial and openâ€source web vulnerability scanners. Software - Practice and Experience, 2020, 50, 1842-1857.	2.5	24
17	Open educational resource (OER) adoption in higher education: Challenges and strategies. , 2017, , .		23
18	Normalized Restricted Random Testing. Lecture Notes in Computer Science, 2003, , 368-381.	1.0	20

#	Article	IF	Citations
19	Lessons from a failed flipped classroom: The hacked computer science teacher. , 2015, , .		20
20	Sensor Networks and Data Management in Healthcare: Emerging Technologies and New Challenges. , 2019, , .		18
21	Exploring user behavioral data for adaptive cybersecurity. User Modeling and User-Adapted Interaction, 2019, 29, 701-750.	2.9	18
22	Regression test case prioritization by code combinations coverage. Journal of Systems and Software, 2020, 169, 110712.	3.3	18
23	PRIORITIZATION OF COMBINATORIAL TEST CASES BY INCREMENTAL INTERACTION COVERAGE. International Journal of Software Engineering and Knowledge Engineering, 2013, 23, 1427-1457.	0.6	17
24	Measuring attitude towards personal data for adaptive cybersecurity. Information and Computer Security, 2017, 25, 560-579.	1.5	17
25	Aggregate-strength interaction test suite prioritization. Journal of Systems and Software, 2015, 99, 36-51.	3.3	16
26	Students as co-producers in a multidisciplinary software engineering project: addressing cultural distance and cross-cohort handover. Teachers and Teaching: Theory and Practice, 2018, 24, 840-853.	0.9	15
27	Trustworthiness prediction of cloud services based on selective neural network ensemble learning. Expert Systems With Applications, 2021, 168, 114390.	4.4	15
28	Towards Post-pandemic Transformative Teaching and Learning. SN Computer Science, 2021, 2, 271.	2.3	15
29	Students as Partners in a Multi-Media Note-Taking App Development: Best Practices. , 2017, , .		14
30	Developing a pedagogical photoreal virtual environment to teach civil engineering. Interactive Technology and Smart Education, 2020, 17, 303-321.	3.8	13
31	Developing an Open Educational Resource: Reflections on a Student-Staff Collaboration. , 2017, , .		12
32	A monte carlo method for metamorphic testing of machine translation services. , 2018, , .		12
33	Using Partition Information to Prioritize Test Cases for Fault Localization. , 2015, , .		11
34	An Empirical Examination of Abstract Test Case Prioritization Techniques. , 2017, , .		11
35	Fault localisation for WS-BPEL programs based on predicate switching and program slicing. Journal of Systems and Software, 2018, 135, 191-204.	3.3	11
36	One-Domain-One-Input: Adaptive Random Testing by Orthogonal Recursive Bisection With Restriction. IEEE Transactions on Reliability, 2019, 68, 1404-1428.	3.5	11

#	Article	IF	Citations
37	Poster: Is Euclidean Distance the best Distance Measurement for Adaptive Random Testing?. , 2020, , .		10
38	A Mobile Virtual Environment game approach for improving student learning performance in integrated science classes in Hong Kong International Schools. , 2013, , .		9
39	Worst-input mutation approach to web services vulnerability testing based on SOAP messages. Tsinghua Science and Technology, 2014, 19, 429-441.	4.1	9
40	Challenges to flipped classroom adoption in Hong Kong secondary schools: Overcoming the first- and second- order barriers to change. , 2015, , .		9
41	Researching and supporting student note-taking: Building a multimedia note-taking app. , 2015, , .		9
42	Metamorphic testing: A new student engagement approach for a new software testing paradigm. , 2016, , .		9
43	Developing Virtual Reality Open Educational Resources in a Sino-Foreign Higher Education Institution: Challenges and Strategies. , 2018, , .		9
44	Abstract Test Case Prioritization Using Repeated Small-Strength Level-Combination Coverage. IEEE Transactions on Reliability, 2020, 69, 349-372.	3.5	9
45	MT4NS: Metamorphic Testing for Network Scanning. , 2021, , .		9
46	Metamorphic Testing: Applications and Integration with Other Methods: Tutorial Synopsis. , 2012, , .		8
47	A rethinking of digital learning device projects. , 2012, , .		8
48	An Adaptive Sequence Approach for OOS Test Case Prioritization. , 2016, , .		8
49	Prioritizing Interaction Test Suites Using Repeated Base Choice Coverage. , 2016, , .		8
50	MT4WS: an automated metamorphic testing system for web services. International Journal of High Performance Computing and Networking, 2016, 9, 104.	0.4	8
51	An Empirical Comparison of Similarity Measures for Abstract Test Case Prioritization. , 2017, , .		8
52	Developing an automated coding tutorial OER. , 2017, , .		8
53	Metamorphic Exploration of an Unsupervised Clustering Program. , 2019, , .		8
54	Good Random Testing. Lecture Notes in Computer Science, 2004, , 200-212.	1.0	7

#	Article	IF	Citations
55	A transformation-based approach to testing concurrent programs using UML activity diagrams. Software - Practice and Experience, 2016, 46, 551-576.	2.5	6
56	Creating a 4D Photoreal VR Environment to Teach Civil Engineering. , 2019, , .		6
57	Dynamic Random Testing of Web Services: A Methodology and Evaluation. IEEE Transactions on Services Computing, 2022, 15, 736-751.	3.2	6
58	Teaching software testing skills: Metamorphic testing as vehicle for creativity and effectiveness in software testing. , 2015, , .		5
59	A random and coverage-based approach for fault localization prioritization. , 2016, , .		5
60	Developing a Language Learning Application OER. , 2018, , .		5
61	Probabilistic Adaptive Random Testing. Proceedings International Conference on Quality Software, 2006, , .	0.0	4
62	An Empirical Comparison of Fixed-Strength and Mixed-Strength for Interaction Coverage Based Prioritization. IEEE Access, 2018, 6, 68350-68372.	2.6	4
63	Metamorphic testing for adobe analytics data collection javascript library. , 2018, , .		4
64	Embracing ambiguity. Interactive Technology and Smart Education, 2019, 16, 143-158.	3.8	4
65	Enhancing Euro NCAP Standards with Metamorphic Testing for Verification of Advanced Driver-Assistance Systems. , 2021, , .		4
66	Using metamorphic relations to verify and enhance Artcode classification. Journal of Systems and Software, 2021, 182, 111060.	3.3	4
67	OER: Six Perspectives on Global Misconceptions and Challenges. , 2019, , .		4
68	New Metrics for Prioritized Interaction Test Suites. IEICE Transactions on Information and Systems, 2014, E97.D, 830-841.	0.4	3
69	Open Educational Resources (OERs) and Technology Enhanced Learning (TEL) in Vocational and Professional Education and Training (VPET). , 2016, , .		3
70	Exploring young studentsâ€™ learning experiences with the iPad: a comparative study in Hong Kong international primary schools. Universal Access in the Information Society, 2016, 15, 359-367.	2.1	3
71	Enhancing supervised classifications with metamorphic relations. , 2018, , .		3
72	A Virtual Reality OER Platform to Deliver Phobia-Motivated Experiences. , 2020, , .		3

#	Article	IF	Citations
73	Creating a Virtual Reality OER Application to Teach Web Accessibility. , 2021, , .		3
74	Metamorphic Testing of Fake News Detection Software. , 2021, , .		3
75	SWFC-ART: A cost-effective approach for Fixed-Size-Candidate-Set Adaptive Random Testing through small world graphs. Journal of Systems and Software, 2021, 180, 111008.	3.3	3
76	Candidate test set reduction for adaptive random testing: An overheads reduction technique. Science of Computer Programming, 2022, 214, 102730.	1.5	3
77	Can Clicker Technology and the Latest Online Response Systems Enhance Student Engagement? A Comparative Study of Two Approaches. Lecture Notes in Educational Technology, 2020, , 287-301.	0.5	3
78	Dissimilarityâ€based test case prioritization through data fusion. Software - Practice and Experience, 0, , .	2.5	3
79	Using social networking to enhance the EFL classroom. , 2011, , .		2
80	An Augmented Cybersecurity Behavioral Research Model. , 2016, , .		2
81	An extended perspective on cybersecurity education. , 2016, , .		2
82	Metamorphic testing as a test case selection strategy. Science China Information Sciences, 2016, 59, 1.	2.7	2
83	Recognizing the Presence of Hidden Visual Markers in Digital Images. , 2017, , .		2
84	On the Selection of Strength for Fixed-Strength Interaction Coverage Based Prioritization. , 2018, , .		2
85	Harnessing OERs in Hong Kong Technical and Vocational Education and Training (TVET). , 2018, , .		2
86	Prioritising abstract test cases: an empirical study. IET Software, 2019, 13, 313-326.	1.5	2
87	Covering Array Constructors: An Experimental Analysis of Their Interaction Coverage and Fault Detection. Computer Journal, 2021, 64, 762-788.	1.5	2
88	Prioritizing random combinatorial test suites. , 2017, , .		2
89	An improved fuzzing approach based on adaptive random testing. , 2020, , .		2
90	Preparing Future SQA Professionals: An Experience Report of Metamorphic Exploration of an Autonomous Driving System. , 2022, , .		2

#	Article	IF	Citations
91	Teaching introductory information technology through English in China: Innovative approaches to information technology education. , 2010, , .		1
92	On the Relationship between Model Coverage and Code Coverage Using MATLAB's Simulink. , 2015, , .		1
93	Detecting Implicit Security Exceptions Using an Improved Variable-Length Sequential Pattern Mining Method. International Journal of Software Engineering and Knowledge Engineering, 2017, 27, 1235-1268.	0.6	1
94	An Extended Abstract of "Metamorphic Testing: Testing the Untestable". , 2019, , .		1
95	Preparing Software Quality Assurance Professionals: Metamorphic Exploration for Machine Learning. , 2019, , .		1
96	CHOCSLAT: Chinese Healthcare-Oriented Computerised Speech & Language Assessment Tools. , 2020, , .		1
97	Not a Silver Bullet, but a Silver Lining: Metamorphic Marking Administration. , 2021, , .		1
98	Remote Software Development: A Student-staff Collaboration to Build a Showcase Platform for Non-traditional Digital Artefacts. , 2021, , .		1
99	Program Slicing and Execution Tracing for Differential Testing at Adobe Analytics. , 2020, , .		1
100	TAFFIES: Tailored Automated Feedback Framework for Developing Integrated and Extensible Feedback Systems. SN Computer Science, 2022, 3, 159.	2.3	1
101	An experimental analysis of fault detection capabilities of covering array constructors. , 2018, , .		0
102	Metamorphic Testing for Block Ciphers. , 2021, , .		0
103	MTKeras: An Automated Metamorphic Testing Platform. International Journal of Software Engineering and Knowledge Engineering, 2021, 31, 1235-1249.	0.6	0
104	ARCAMETES. , 2020, , .		0
105	Sensor Networks and Personal Health Data Management: Software Engineering Challenges. Advances in Intelligent Systems and Computing, 2021, , 140-159.	0.5	0
106	Summary of SWFC-ART: A Cost-effective Approach for Fixed-Size-Candidate-Set Adaptive Random Testing through Small World Graphs. , 2022, , .		0