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Academic Qualification:

Ph.D., Huazhong University of Science and Technology, Wuhan, China, 2013

M.S., Huazhong University of Science and Technology, Wuhan, China (Pursuing Ph.D. in advance), 2009

B.Eng., Zhengzhou University of Light Industry, Zhengzhou, China, 2007

Teaching Area

Undergraduate Courses:

CS014 Software Engineering

CS250 Software Engineering

CS103 Software Engineering Practices

SE111 Object-Oriented Programming

GIT001 Information Technology

Research Area

AI for Software Engineering, Software Engineering for AI, Software Testing, Software Debugging, Software M

Working Experience

Jan. 2021 to present: Associate Professor, Faculty of Information Technology, Macau University of Science and

Sep. 2016 to Dec. 2020: Associate Professor, School of Computer Science and Communication Engineering, Ji

Nov. 2017 to Nov. 2018: Visiting Scholar, Faculty of Information Technology, Monash University, Australia

Jul. 2016 to Oct. 2016: Visiting Scholar, Department of Computer Science and Software Engineering, Swinburn

Dec. 2013 to Aug. 2016: Assistant Professor, School of Computer Science and Communication Engineering, Ji

Academic Publications (Selected)

1. Rubing Huang*, Weifeng Sun, Yinyin Xu, Haibo Chen, Dave Towey, Xin Xia, A Survey on Adaptive Random Testing, IEEE Transactions on Software Engineering (TSE), to appear, 2019. (DOI:
2. Muhammad Ashfaq, Rubing Huang*, Dave Towey, Michael Omari, Dmitry Yashunin, Patrick Kwaku Kudjo, Tao Zhang, SWFC-ART: A Cost-effective Approach for Fixed-Size-Candidate-Set Adaptive Random Testing through Small World Graphs, Journal of Systems and Software (JSS), vol. 180, pp: 111008, 2021.
3. Rubing Huang*, Haibo Chen, Yunan Zhou, Tsong Yueh Chen, Dave Towey, Man Fai Lau, Sebastian Ng, Robert Merkel, Jinfu Chen, Covering Array Constructors: An Experimental Analysis of Their Interaction Coverage and Fault Detection, The Computer Journal, vol. 54, no. 5, pp: 762-788, 2021.
4. Saihua Cai, Rubing Huang, Jinfu Chen, Chi Zhang, Bo Liu, Shang Yin, Ye Geng, An Efficient Outlier Detection Method for Data Streams Based on Closed Frequent Patterns by Considering Anti-monotonic
5. Rubing Huang*, Qianjun Zhang, Dave Towey, Weifeng Sun, Jinfu Chen, Regression Test Case Prioritization by Code Combinations Coverage, Journal of Systems and Software (JSS), vol. 169, pp: 110712,
6. Muhammad Ashfaq, Rubing Huang*, Michael Omari, FSCS-SIMD: An efficient implementation of Fixed-Size-Candidate-Set adaptive random testing using SIMD instructions, The 31st IEEE International Symposium on Software Reliability Engineering (ISSRE'20), October 12-15, pp. 277-288, Coimbra, Portugal, 2020.
7. Rubing Huang*, Weifeng Sun, Tsong Yueh Chen, Dave Towey, Jinfu Chen, Weiwen Zong, Yunan Zhou, Abstract Test Case Prioritization using Repeated Small-strength Level-combination Coverage, IEEE

8. Rubing Huang*, Weiheng Sun, Tsong Yueh Chen, Sebastian Ng, Jinfu Chen, Identification of Failure Regions for Programs with Numeric Inputs, *IEEE Transactions on Emerging Topics in Computational*
9. Rubing Huang*, Weiwen Zong, Tsong Yueh Chen, Dave Towey, Yunan Zhou, Jinfu Chen, Prioritising Abstract Test Cases: An Empirical Study, *IET Software*, vol. 13, no. 4, pp: 313-326, 2019.
10. Rubing Huang*, Yunan Zhou, Tsong Yueh Chen, Dave Towey, Jinfu Chen, Poster: An Experimental Analysis of Fault Detection Capabilities of Covering Array Constructors, *The 40th ACM/IEEE International Conference on Software Engineering (ICSE'18)*, May 27-June 3, pp. 246-247, Gothenburg, Sweden, 2018.
10. Rubing Huang*, Yunan Zhou, Dave Towey, Weiwen Zong, Jinfu Chen, An Empirical Examination of Abstract Test Case Prioritization Techniques, *The 39th ACM/IEEE International Conference on Software Engineering (ICSE'17)*, May 20-28, pp. 141-143, Buenos Aires, Argentina, 2017.
11. Rubing Huang, Huai Liu*, Xiaodong Xie, Jinfu Chen, Enhancing Mirror Adaptive Random Testing through Dynamic Partitioning, *Information and Software Technology (IST)*, vol. 67, pp: 13-29, 2015.
12. Rubing Huang*, Jinfu Chen, Dave Towey, Alvin T. S. Chan, Yansheng Lu, Aggregate-Strength Interaction Test Suite Prioritization, *Journal of Systems and Software (JSS)*, vol. 99, pp: 36-51, 2015.