JIANG Lingxiao

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Education

PhD, University of California, Davis, United States of America, 2009
in Computer Science

Master of Science, Peking University, China, 2003
in Applied Mathematics

Bachelor of Science, Peking University, China, 2000
in Information Science

Academic Appointments

Professor of Computer Science, School of Computing and Information Systems, SMU, Jan 2024 - Present

Associate Professor of Computer Science, School of Computing and Information Systems, SMU, Apr 2021 - Dec 2023

Associate Professor of Information Systems, School of Computing and Information Systems, SMU, Jan 2018 - Mar 2021

Assistant Professor of Information Systems, School of Computing and Information Systems, SMU, Jan 2010 - Dec 2017

Lecturer of Information Systems, School of Computing and Information Systems, SMU, Nov 2009 - Dec 2009

Academic Administrative Positions

Director, Centre for Research for Intelligent Software Engineering (RISE), Centre for Research on Intelligent Software Engineering, SMU, Apr 2025 - Present

Co-Director, Centre for Research for Intelligent Software Engineering (RISE), Centre for Research on Intelligent Software Engineering, SMU, Apr 2023 - Mar 2025

Deputy Director, Research Lab for Intelligent Software Engineering, Centre for Research on Intelligent Software Engineering, SMU, Apr 2022 - Mar 2023

Director, Research Lab for Intelligent Software Engineering, Centre for Research on Intelligent Software Engineering, SMU, Apr 2021 - Mar 2022

Deputy Director, Research Lab for Intelligent Software Engineering, Centre for Research on Intelligent Software Engineering, SMU, Apr 2020 - Mar 2021

Member (School of Information Systems), University Tribunal, Office of the President, SMU, Jul 2019 - Jun 2025

Other Positions and Affiliations

Test Strategist, Nvidia Corporation, United States of America, Jan 2009

Intern, Center for Software Excellence, Microsoft, United States of America, Jan 2007

Intern, Lawrence Livermore National Laboratory, United States of America, Jan 2005 - Jan 2006

Awards and Honors

Test-of-Time Award , IEEE International Symposium on Software Reliability Engineering (ISSRE), 2022

Lee Kong Chian Fellow, SMU, 2021

Distinguished Paper Award, IEEE/ACM ICSE New Idea and Emerging Results, 2018

Impact Paper Award, ACM SIGSOFT, 2018

The Computer Science Best Dissertation Award, UC Davis, 2010

LEE Foundation Fellow for Research Excellence, SMU, 2010

The Honorable Mention for Zuhair A. Munir Best Dissertation Award, UC Davis, 2010

Best Computer Science Graduate Student Researcher, UC Davis, 2008

Professional Memberships

Member, Institute of Electrical and Electronics Engineers (IEEE), IEEE Computer Society, 2010

Member, Association for Computing Machinery (ACM), ACM Special Interest Group on Software Engineering (SIGSOFT), ACM Special Interest Group on Programming Languages (SIGPLAN), 2005

Artistic and Professional Performances

FastKLEE: faster symbolic execution via reducing redundant bound checking of type-safe pointers, available at https://github.com/haoxintu/FastKLEE, 01 Jan 2022

iTiger: an automatic issue title generation tool, available at https://github.com/soarsmu/iTiger, 01 Jan 2022

MANDO-GURU series: vulnerability detection for smart contract source code and bytecode via heterogeneous graph deep graph learning, available at https://github.com/MANDO-Project, 01 Jan 2022

RecipeGen++: an automated trigger action programs generator, available at https://github.com/imamnurby/RecipeGen, 01 Jan 2022

UIPDroid: Unrooted Dynamic Monitor of Android App UIs for Fine-Grained Permission Control, available at https://github.com/pangdingzhang/Anti-Beholder, 01 Jan 2022

InferCode: A deep code learning tool that maps any code snippet into vector embedding, available at https://github.com/bdqnghi/infercode, 01 Jan 2021

SmartEmbed: A tool for clone and bug detection in smart contracts through structural code embedding, available at https://github.com/beyondacm/SmartEmbed, 01 Jan 2019

LibraryGuru: An API recommendation engine for Android developers, available at http://libraryguru.info, 01 Jan 2017

ReDex: A scalable change-encoding based tool for detecting code refactorings, available at http://www.comp.nus.edu.sg/~specmine/redex/, 01 Jan 2014

Comprehensive Evaluation of Association Measures for Fault Localization, available at http://www.mysmu.edu/phdis2009/lucia.2009/Dataset.htm, 01 Jan 2010

EqMiner: A Random-Testing Based Tool for Finding Functionally Equivalent Code Fragments, available at https://github.com/skyhover/dyclone, 01 Jan 2009

DECKARD: A Tree-Based Scalable Code Clone and Clone-Related Bug Detection Tool, available at https://github.com/skyhover/Deckard, 01 Jan 2006

RESEARCH

Research Interests

Program Analysis, Automated Testing and Debugging
Software Reliability, Software Security and Privacy
Similarity Measurement, Code Search and Synthesis
Deep Learning of Code, Software Mining, Data Mining

Publications

Journal Articles [Refereed]

MANDO-LLM: Heterogeneous graph transformers with large language models for smart contract vulnerability detection, by NGUYEN, Nhat-Minh; NGUYEN, Hoang H.; LE THANH, Long; AHMADI, Zahra; DOAN, Thanh-Nam; WU, Daoyuan; JIANG, Lingxiao. (2025). *ACM Transactions on Software Engineering and Methodology,* 1-30. https://doi.org/10.1145/3765751 (Published)

Detecting DeFi fraud with a graph-transformer language model, by MA, Wei; SHI, Junjie; QIU, Jiaxi; WU, Cong; CHEN, Jing; JIANG, Lingxiao; LIU, Shangqing; LIU, Yang; XIANG, Yang. (2025). *IEEE Transactions on Information Forensics and Security, 20* 10051-10065. https://doi.org/10.1109/TIFS.2025.3612184 (Published)

Measuring model alignment for code clone detection using causal interpretation, by ABID, Shamsa; CAI, Xuemeng; JIANG, Lingxiao. (2025). *Empirical Software Engineering, 30* (2), 1-46. https://doi.org/10.1007/s10664-024-10583-0 (Published)

Performance evaluation of NewSQL databases in a distributed architecture, by ZHANG Zhiyao; MEGARGEL, Alan; JIANG Lingxiao. (2025). *IEEE Access, 13* 11185-11194. https://doi.org/10.1109/ACCESS.2025.3529740 (Published)

Fuzzing drones for anomaly detection: A systematic literature review, by MALVIYA, Vikas K.; MINN Wei; SHAR Lwin Khin; JIANG Lingxiao. (2025). *Computers and Security, 148* 1-45. https://doi.org/10.1016/j.cose.2024.104157 (Published)

Isolating compiler bugs by generating effective witness programs with Large Language Models, by TU, Haoxin; ZHOU, Zhide; JIANG, He; YUSUF, Imam Nur Bani; LI, Yuxian; JIANG, Lingxiao. (2024). *IEEE Transactions on Software Engineering, 50* (7), 1768-1788. https://doi.org/10.1109/TSE.2024.3397822 (Published)

Concretely mapped symbolic memory locations for memory error detection, by TU, Haoxin; JIANG, Lingxiao; HONG, Jiaqi; DING, Xuhua; JIANG, He. (2024). *IEEE Transactions on Software Engineering, 50* (7), 1747-1767. https://doi.org/10.1109/TSE.2024.3395412 (Published)

Experimental comparison of features, analyses, and classifiers for Android malware detection, by SHAR, Lwin Khin; DEMISSIE, Biniam Fisseha; CECCATO, Mariano; YAN, Naing Tun; LO, David; JIANG, Lingxiao;

BIENERT, Christoph. (2023). *Empirical Software Engineering, 28* (6), 1-39. https://doi.org/10.1007/s10664-023-10375-y (Published)

Duplicate bug report detection: How far are we?, by ZHANG, Ting; HAN, DongGyun; VINAYAKARAO, Venkatesh; IRSAN, Ivana Clairine; XU, Bowen; THUNG, Ferdian; LO, David; JIANG, Lingxiao. (2023). *ACM Transactions on Software Engineering and Methodology, 32* (4), 1-32. https://doi.org/10.1145/3576042 (Published)

Detecting C++ compiler front-end bugs via grammar mutation and differential testing, by TU, Haoxin; JIANG, He; ZHOU, Zhide; TANG, Yixuan; REN, Zhilei; QIAO, Lei; JIANG, Lingxiao. (2023). *IEEE Transactions on Reliability, 72* (1), 343 -357. https://doi.org/10.1109/TR.2022.3171220 (Published)

AndroEvolve: automated Android API update with data flow analysis and variable denormalization, by HARYONO, Stefanus A.; THUNG, Ferdian; LO, David; JIANG, Lingxiao; LAWALL, Julia; KANG, Hong Jin; SERRANO, Lucas; MULLER, Gilles. (2022). *Empirical Software Engineering, 27* (3), 1-35. https://doi.org/10.1007/s10664-021-10096-0 (Published)

Checking smart contracts with structural code embedding, by GAO, Zhipeng; JIANG, Lingxiao; XIA, Xin; LO, David; GRUNDY, John. (2021). *IEEE Transactions on Software Engineering, 47* (12), 2874-2891. https://doi.org/10.1109/TSE.2020.2971482 (Published)

On the generalizability of Neural Program Models with respect to semantic-preserving program transformations, by RABIN, Md Rafiqul Islam; BUI, Nghi D. Q.; WANG, Ke; YU, Yijun; JIANG, Lingxiao; ALIPOUR, Mohammad Amin. (2021). *Information and Software Technology, 135* 1-13. https://doi.org/10.1016/j.infsof.2021.106552 (Published)

API recommendation for event-driven Android application development, by YUAN, Weizhao; NGUYEN, Hoang H.; JIANG, Lingxiao; CHEN, Yuting; ZHAO, Jianjun; YU, Haibo. (2019). *Information and Software Technology, 107* 30-47. https://doi.org/10.1016/j.infsof.2018.10.010 (Published)

CLCMiner: Detecting Cross-Language Clones without Intermediates, by CHENG, Xiao; PENG, Zhiming; JIANG, Lingxiao; ZHONG, Hao; YU, Haibo; ZHAO, Jianjun. (2017). *IEICE Transactions on Information and Systems, E100D* (2), 273-284. https://doi.org/10.1587/transinf.2016EDP7334 (Published)

AutoQuery: automatic construction of dependency queries for code search, by WANG, Shaowei; LO, David; JIANG, Lingxiao. (2016). *Automated Software Engineering, 23* (3), 393-425. http://doi.org/10.1007/s10515-014-0170-2 (Published)

Diversity maximization speedup for localizing faults in single-fault and multi-fault programs, by XIA, Xin; GONG, Liang; LE, Tien-Duy B.; LO, David; JIANG, Lingxiao; ZHANG, Hongyu. (2016). *Automated Software Engineering, 23* (1), 43-75. http://doi.org/10.1007/s10515-014-0165-z (Published)

To what extent could we detect field defects? An extended empirical study of false negatives in static bug-finding tools, by THUNG, Ferdian; LUCIA; LO, David; JIANG, Lingxiao; RAHMAN, Foyzur; DEVANBU, Premkumar. (2015). *Automated Software Engineering, 22* (4), 561-602. http://doi.org/10.1007/s10515-014-0169-8 (Published)

Extended comprehensive study of association measures for fault localization, by LUCIA; LO, David; JIANG, Lingxiao; THUNG, Ferdian; BUDI, Aditya. (2014). *Journal of Software: Evolution and Process, 26* (2), 172-219. http://doi.org/10.1002/smr.1616 (Published)

Book Chapters

Scalable parallelization of specification mining using distributed computing, by WANG, Shaowei; LO, David; JIANG, Lingxiao; MAOZ, Shahar; BUDI, Aditya. (2015). In C. Bird; T. Menzie; T. Zimmermann (Ed.), *The art and science of analyzing software data* (pp. 623-648) Amsterdam: Elsevier. http://doi.org/10.1016/B978-0-12-411519-4.00021-5 (Published)

Conference Proceedings

AgentGuard: An active threat discovery system for package confusion using multi-agent collaboration, by MA, Wei; LI, Yu; CHEN, Zhi; LIU, Ye; JIANG, Lingxiao; HU, Qiang; TAO, Junyi. (2025.0). *Proceedings of the 7th International Conference on Machine Learning for Cyber Security (ML4CS), Hangzhou, China, December12-14,* (pp. 1-15) Hangzhou, China: (Accepted)

Runtime anomaly detection for drones: An integrated rule-mining and unsupervised learning approach, by TAN, Ivan; MINN, Wei; POSKITT, Christopher M.; SHAR, Lwin Khin; JIANG, Lingxiao. (2025.0). *Proceedings of the 29th International Conference on Engineering of Complex Computer Systems (ICECCS 2025), Hangzhou, China, July 2-4,* (pp. 3-23) Cham: Springer. https://doi.org/10.1007/978-3-032-00828-2_1 (Published)

RustMap: Towards project-scale C-to-Rust migration via program analysis and LLM, by CAI, Xuemeng; LIU, Jiakun; HUANG, Xiping; YU, Yijun; WU, Haitao; LI, Chunmiao; WANG, Bo; YUSUF, Imam Nur Bani; JIANG, Lingxiao. (2025.0). *Engineering of Complex Computer Systems: 29th International Conference, ICECCS 2025, Hangzhou, China, July 2-4,* (pp. 283-302) New York : ACM. (Published)

Dissecting global search: A simple yet effective method to boost individual discrimination testing and repair, by QUAN, Lili; LI, Tianlin; XIE, Xiaofei; CHEN, Zhenpeng; CHEN, Sen; JIANG, Lingxiao; LI, Xiaohong. (2025.0). *Proceedings of the ICSE 2025 47th International Conference on Software Engineering, Ontario, Canada, April 27 - May 3,* (pp. 1908-1920) Los Alamitos, CA: IEEE. https://doi.org/10.1109/ICSE55347.2025.00235 (Published)

TensorJSFuzz: Effective testing of web-based deep learning frameworks via input-constraint extraction, by QUAN, Lili; XIE, Xiaofei; GUO, Qianyu; JIANG, Lingxiao; CHEN, Sen; WANG, Junjie; LI, Xiaohong. (2025.0). *WWW '25: Proceedings of the ACM on Web Conference 2025, Sydney, Australia, April 28 - May 2,* (pp. 3405-3414) New York: ACM. https://doi.org/10.1145/3696410.3714649 (Published)

Use of search tools in software development: A study of microservice-based team projects, by LAU, Yi Meng; KOH, Christian Michael; JIANG Lingxiao. (2025.0). *Proceedings of the CSEDU 2025: 17th International Conference on Computer Supported Education, Porto, Portugal, April 1-3,* (pp. 1-11) Portugal: SCITEPRESS Digital Library. (Published)

Adapting knowledge prompt tuning for enhanced automated program repair, by CAI, Xuemeng; JIANG, Lingxiao. (2025.0). *Proceedings of the 2025 IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER), Montreal, Canada, March 4-7,* (pp. 360-371) Los Alamitos, CA: IEEE Computer Society. https://doi.org/10.1109/SANER64311.2025.00041 (Published)

Evaluating software development agents: Patch patterns, code quality, and issue complexity in real-world GitHub scenarios, by CHEN, Zhi; JIANG, Lingxiao. (2025.0). *Proceedings of the 2025 IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER), Montreal, Canada, March 4-7,* (pp. 657-668) Los Alamitos, CA: IEEE Computer Society. https://doi.org/10.1109/SANER64311.2025.00068 (Published)

Promise and peril of collaborative code generation models : Balancing effectiveness and memorization, by CHEN, Zhi; JIANG, Lingxiao. (2024.0). *Proceedings of the 39th IEEE/ACM International Conference on Automated Software Engineering (ASE 2024) : Sacramento CA, USA, October 27 - November 1,* (pp. 493-505) New York, NY, USA: Association for Computing Machinery. https://doi.org/10.1145/3691620.3695021 (Published)

Navigating governance paradigms: A cross-regional comparative study of generative AI governance processes & principle, by LUNA, Jose; TAN, Ivan; XIE, Xiaofei; JIANG, Lingxiao. (2024.0). *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society 7th AIES 2024 : San Jose, CA, USA, October 21-23,* (pp. 917-931) USA: AAAI Press. (Published)

MtdScout : Complementing the identification of insecure methods in Android apps via source-to-bytecode signature generation and tree-based layered search, by ZHANG, Zicheng; MA, Haoyu; WU, Daoyuan; GAO, Debin; YI, Xiao; CHEN, Yufan; WU, Yan; JIANG, Lingxiao. (2024.0). *Proceedings of the 9th IEEE European Symposium on Security and Privacy (EuroS&P 2024) : Vienna Austria, July 8-12,* (pp. 724-740) Vienna Austria: IEEE Computer Society. https://doi.ieeecomputersociety.org/10.1109/EuroSP60621.2024.00045 (Published)

Teaching software development for real-world problems using a microservice-based collaborative problem-solving approach, by LAU, Yi Meng; KOH, Christian Michael; JIANG, Lingxiao. (2024.0). *ICSE-SEET 2024: Proceedings of the IEEE/ACM 46th International Conference on Software Engineering: Software Engineering Education and Training: Lisbon, April 14-20,* (pp. 22-33) New York: ACM. https://doi.org/10.1145/3639474.3640064 (Published)

Beyond a joke: Dead Code Elimination can delete live code, by TU, Haoxin; JIANG, Lingxiao; GAO, Debin; JIANG, He. (2024.0). *ICSE-NIER'24: Proceedings of the 2024 ACM/IEEE 44th International Conference on Software Engineering: New Ideas and Emerging: Lisbon, April 14-20,* (pp. 32-36) New York: ACM.

https://doi.org/10.1145/3639476.3639763 (Published)

DronLomaly: Runtime log-based anomaly detector for DJI drones, by MINN, Wei; TUN, Yan Naing; SHAR, Lwin Khin; JIANG, Lingxiao. (2024.0). *2024 IEEE/ACM 46th International Conference on Software Engineering: Companion Proceedings (ICSE-Companion), Lisbon, April 14-20,* (pp. 6-10) Washington, DC: IEEE Computer Society. https://doi.org/10.1145/3639478.3640042 (Published)

Unleashing the power of Clippy in real-world Rust projects, by LI, Chunmiao; YU, Yijun; WU, Haitao; CARLIG, Luca; NIE, Shijie; JIANG, Lingxiao. (2024.0). *2024 IEEE/ACM 46th International Conference on Software Engineering: Companion Proceedings (ICSE-Companion), April 14-20, 2024, Lisbon,* (pp. 318-319) Washington, DC: IEEE Computer Society. https://doi.org/10.1145/3639478.3643096 (Published)

Interpreting CodeBERT for semantic code clone detection, by ABID, Shamsa; CAI, Xuemeng; JIANG, Lingxiao. (2023.0). *2023 30th Asia-Pacific Software Engineering Conference (APSEC): Seoul, December 4-7: Proceedings,* (pp. 229-238) Pistacataway: IEEE. https://doi.org/10.1109/APSEC60848.2023.00033 (Published)

KRover: A symbolic execution engine for dynamic kernel analysis, by PITIGALAARACHCHILLAGE, Pansilu; DING, Xuhua; QIU, Haiqing; TU, Haoxin; HONG, Jiaqi; JIANG, Lingxiao. (2023.0). *CCS '23: Proceedings of the 30th ACM SIGSAC Conference on Computer and Communications Security, Copenhagen, November 26-30,* (pp. 2009-2023) New York: ACM. https://doi.org/10.1145/3576915.3623198 (Published)

ArduinoProg: Towards automating Arduino programming, by BANI YUSUF, Imam Nur; ABDUL JAMAL, Diyanah; JIANG, Lingxiao. (2023.0). *2023 38th IEEE/ACM International Conference on Automated Software Engineering: Luxembourg, September 11-15: Proceedings,* (pp. 2030-2033) Piscataway, NJ: IEEE. https://doi.org/10.1109/ASE56229.2023.00055 (Published)

Fine-grained in-context permission classification for Android apps using control-flow graph embedding, by MALVIYA, Vikas K.; TUN, Yan Naing; LEOW, Chee Wei; XYNYN, Ailys Tee; SHAR, Lwin Khin; JIANG, Lingxiao. (2023.0). *2023 38th IEEE/ACM International Conference on Automated Software Engineering: Luxembourg, September 11-15: Proceedings,* (pp. 1225-1237) Piscataway, NJ: IEEE. https://doi.org/10.1109/ASE56229.2023.00056 (Published)

Beyond "protected" and "private": An empirical security analysis of custom function modifiers in smart contracts, by FANG, Yuzhou; WU, Daoyuan; YI, Xiao; WANG, Shuai; CHEN, Yufan; CHEN, Mengjie; LIU, Yang; JIANG, Lingxiao. (2023.0). *ISSTA '23: Proceedings of the 32nd ACM SIGSOFT International Symposium on Software Testing and Analysis, Seattle, July 17-21,* (pp. 1157-1168) New York: ACM. https://doi.org/10.1145/3597926.3598125 (Published)

MANDO-HGT: Heterogeneous graph transformers for smart contract vulnerability detection
, by NGUYEN, Hoang H.; NGUYEN, Nhat-Minh; XIE, Chunyao; AHMADI, Zahra; KUDENDO, Daniel; DOAN, Thanh-Nam; JIANG, Lingxiao. (2023.0). *Proceedings of the 20th IEEE/ACM International Conference on Mining Software Repositories, Melbourne, Australia, 2023 May 15-16,* (pp. 334-346) New York: IEEE. https://doi.org/10.1109/MSR59073.2023.00052 (Published)

Automating Arduino programming: From hardware setups to sample source code generation, by YUSUF, Imam Nur Bani; ABDUL JAMAL, Diyanah; JIANG, Lingxiao. (2023.0). *Proceedings of the 20th International Conference on Mining Software Repositories MSR 2023: Melbourne, May 15-16,* Piscataway, NJ: IEEE. (Published)

BlockScope: Detecting and investigating propagated vulnerabilities in forked blockchain projects, by YI, Xiao; FANG, Yuzhou; WU, Daoyuan; JIANG, Lingxiao. (2023.0). *Network and Distributed System Security Symposium (NDSS) 2023: San Diego, February 27 - March 3,* (pp. 1-16) San Diego: Internet Society. https://doi.org/10.14722/ndss.2023.24222 (Published)

DronLomaly: Runtime detection of anomalous drone behaviors via log analysis and deep learning, by SHAR, Lwin Khin; MINN, Wei; TA, Nguyen Binh Duong; FAN, Jiani; JIANG, Lingxiao; LIM, Wai Kiat Daniel. (2022.0). *2022 29th Asia-Pacific Software Engineering Conference (APSEC): Virtual, December 6-9: Proceedings,* (pp. 119-128) Piscataway, NJ: IEEE. https://doi.org/10.1109/APSEC57359.2022.00024 (Published)

MANDO-GURU: vulnerability detection for smart contract source code by heterogeneous graph embeddings, by NGUYEN, Hoang H.; NGUYEN, Nhat-Minh; DOAN, Hong-Phuc; AHMADI, Zahrai; DOAN, Thanh-Nam; JIANG, Lingxiao. (2022.0). *Proceedings of the 30th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering, Singapore, 2022 November 14-18,* (pp. 1736-1740) New York: Association for Computing Machinery.

https://doi.org/10.1145/3540250.3558927 (Published)

iTiger: An automatic issue title generation tool, by ZHANG, Ting; IRSAN, Ivana Clairine; THUNG, Ferdian; HAN, DongGyun; LO, David; JIANG, Lingxiao. (2022.0). *Proceedings of the 30th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering, ESEC/FSE 2022, Singapore, Singapore, November 14-18, 2022,* (pp. 1637-1641) Singapore: ACM. http://doi.org/10.1145/3540250.3558934 (Published)

RecipeGen++: An automated trigger action programs generator, by YUSUF, Imam Nur Bani; ABDUL JAMAL, Diyanah; JIANG, Lingxiao; LO, David. (2022.0). *ESEC/FSE 2022: Proceedings of the 30th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering, Singapore, November 14-18,* (pp. 1672-1676) New York: ACM. http://doi.org/10.1145/3540250.3558913 (Published)

FastKLEE: faster symbolic execution via reducing redundant bound checking of type-safe pointers, by TU, Haoxin; JIANG, Lingxiao; DING, Xuhua; JIANG, He. (2022.0). *Proceedings of the 30th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering, Singapore, 2022 November 14 - 18,* Singapore: Association for Computing Machinery. https://doi.org/10.1145/3540250.3558919 (Published)

An empirical study of blockchain system vulnerabilities: modules, types, and patterns, by YI, Xiao; WU, Daoyuan; JIANG, Lingxiao; FANG, Yuzhou; ZHANG, Kehuan; ZHANG, Wei. (2022.0). *Proceedings of the 30th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering, Singapore, 2022 November 14-18,* (pp. 709-721) New York: Association for Computing Machinery. https://doi.org/10.1145/3540250.3549105 (Published)

RemGen: remanufacturing a random program generator for compiler testing, by TU, Haoxin; JIANG, He; LI, Xiaochen; ZHOU, Zhide; JIANG, Lingxiao. (2022.0). *Proceedings of the 33rd IEEE International Symposium on Software Reliability Engineering, Charlotte, USA, 2022 October 31 - November 3,* (pp. 529-540) Charlotte, North Carolina, USA: IEEE. https://doi.org/10.1109/ISSRE55969.2022.00057 (Published)

Accurate generation of trigger-action programs with domain-adapted sequence-to-sequence learning, by YUSUF, Imam Nur Bani; JIANG, Lingxiao; LO, David. (2022.0). *Proceedings of the 30th IEEE/ACM International Conference on Program Comprehension, ICPC 2022, Virtual Event, May 16-17, 2022,* (pp. 99-110) Virtual Event: ACM. https://doi.org/10.1145/3524610.3527922 (Published)

Right to know, right to refuse: Towards UI perception-based automated fine-grained permission controls for Android apps, by MALVIYA, Vikas Kumar; LEOW, Chee Wei; KASTHURI, Ashok; TUN, Yan Naing; SHAR, Lwin Khin; JIANG, Lingxiao. (2022.0). *Proceedings of the 37th IEEE/ACM International Conference on Automated Software Engineering (ASE), Ann Arbor, Michigan, 2022 October 10-14,* (pp. 1-6) Ann Arbor, Michigan: ACM. https://doi.org/10.1145/3551349.3559556 (Published)

MANDO: Multi-level heterogeneous graph embeddings for fine-grained detection of smart contract vulnerabilities, by NGUYEN, Hoang H.; NGUYEN, Nhat-Minh; XIE, Chunyao; AHMADI, Zahra; KUDENKO, Daniel; DOAN, Thanh-Nam; JIANG, Lingxiao.. (2022.0). *Proceedings of the 9th IEEE International Conference on Data Science and Advanced Analytics*

, Virtual Event: IEEE. http://doi.org/10.48550/arXiv.2208.13252 (Accepted)

AUTOPRTITLE: A tool for automatic pull request title generation, by IRSAN, Ivana Clairine; ZHANG, Ting; THUNG, Ferdian; LO, David; JIANG, Lingxiao. (2022.0). *2022 IEEE International Conference on Software Maintenance and Evolution (ICSME): Limassol, Cyprus, October 2-7: Proceedings,* (pp. 454-458) Piscataway, NJ: IEEE. https://doi.org/10.1109/ICSME55016.2022.00058 (Published)

Automatic pull request title generation, by ZHANG, Ting; IRSAN, Ivana Clairine; THUNG, Ferdian; HAN, DongGyun; LO, David; JIANG, Lingxiao. (2022.0). *2022 IEEE International Conference on Software Maintenance and Evolution: Limassol, Cyprus, October 2-7: Proceedings,* (pp. 71-81) Piscataway, NJ: IEEE. https://doi.org/10.1109/ICSME55016.2022.00015 (Published)

UIPDroid: Unrooted dynamic monitor of Android app UIs for fine-grained permission control, by DUAN, Mulin; JIANG, Lingxiao; SHAR, Lwin Khin; GAO, Debin. (2022.0). *Proceedings of the 44th International Conference on Software Engineering, Pittsburgh, USA, 2022 May 21-29,* (pp. 227-231) Pittsburgh: IEEE. http://doi.org/10.1109/ICSE-Companion55297.2022.9793833 (Published)

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Profile-guided program simplification for effective testing and analysis, by JIANG, Lingxiao; SU, Zhendong. (2008.0). *SIGSOFT 2008/FSE-16: Proceedings of the 16th ACM SIGSOFT International Symposium on the Foundations of Software Engineering: Atlanta, Georgia, November 9-14,* (pp. 48-58) New York: ACM. http://doi.org/10.1145/1453101.1453110 (Published)

Scalable detection of semantic clones, by GABEL, Mark; JIANG, Lingxiao; SU, Zhendong. (2008.0). *ICSE '08: Proceedings of the 30th International Conference on Software Engineering: Leipzig, Germany, 10-18 May,* (pp. 321-330) New York: ACM. http://doi.org/10.1145/1368088.1368132 (Published)

Context-aware statistical debugging: From bug predictors to faulty control flow paths, by JIANG, Lingxiao; SU, Zhendong. (2007.0). *ASE '07: Proceedings of the 22nd ACM/IEEE International Conference on Automated Software Engineering: Atlanta, Georgia, 5-9 November,* (pp. 184-193) New York: ACM. http://doi.org/10.1145/1321631.1321660 (Published)

Context-based detection of clone-related bugs, by JIANG, Lingxiao; SU, Zhendong; CHIU, Edwin. (2007.0). *ESEC-FSE '07: Proceedings of the 6th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering: Dubrovnik, Croatia, September 3-7,* (pp. 55-64) New York: ACM. http://doi.org/10.1145/1287624.1287634 (Published)

DECKARD: Scalable and accurate tree-based detection of code clones, by JIANG, Lingxiao; MISHERGI, Ghassan; SU, Zhendong; GLONDU, Stephane. (2007.0). *ICSE 2007: Proceedings of the 29th International Conference on Software Engineering: Minneapolis, 20-26 May,* (pp. 96-105) Los Alamitos, CA: IEEE Computer Society. https://doi.ieeecomputersociety.org/10.1109/ICSE.2007.30 (Published)

Osprey: A practical type system for validating dimensional unit correctness of C programs, by JIANG, Lingxiao; SU, Zhendong. (2006.0). *ICSE '06: Proceedings of the 28th International Conference on Software Engineering: Shanghai, China, 20-28 May,* (pp. 262-271) New York: ACM. https://doi.org/10.1145/1134285.1134323 (Published)

Conference Papers

Evaluating DeFi vulnerabilities: The role of bug bounty programs on DeFi software supply chain, by KE, Ping Fan; LAU, Yi Meng; JIANG, Lingxiao. (2025.0). *35th Annual Workshop on Information Technologies and Systems (WITS 2025), Nashville, Tennessee, USA, December 17-19,* Nashville, TN. (Presented)

TreeCaps: Tree-Structured Capsule Networks for program source code processing, by JAYASUNDARA, Vinoj; BUI, Nghi Duy Quoc; JIANG, Lingxiao; LO, David. (2019.0). *Workshop on Machine Learning for*

Systems at the Conference on Neural Information Processing Systems 33rd NeurIPS 2019, December 8-14, Vancouver. (Published)

Research Grants

Singapore Management University

Development of Secured Components & Systems in Emerging Technologies through Hardware & Software Evaluation, National Cybersecurity R&D (NCR) Programme, Cyber Security Agency of Singapore (CSA) , PI (Project Level): DING Xuhua, Debin GAO, Robert H DENG, David LO , Co-PI (Project Level): Guansong PANG, JIANG Lingxiao, DUAN Yue, YANG Guomin, PANG Hwee Hwa, 2023, S$11,365,070

The Science of Certified AI Systems, Academic Research Fund (AcRF) Tier 3, Ministry of Education (MOE) , PI (Project Level): SUN Jun , Co-PI (Project Level): David LO, JIANG Lingxiao, 2021, S$9,340,776

Trust to Train and Train to Trust: Agent Training Programs for Safety-Critical Environments, AI Singapore Research Programme, AI Singapore , PI (Project Level): Pradeep Reddy VARAKANTHAM , Co-PI (Project Level): Akshat KUMAR, Arunesh SINHA, David LO, 2021, S$6,086,963.76

ADrone: Auditing Drone Behaviours for Accountability of Criminal/Malicious Activities, NSoE MSS-CS Research Programme, National Satellite of Excellence - Mobile Systems Security and Cloud Security , PI (Project Level): SHAR Lwin Khin , Co-PI (Project Level): Don TA, JIANG Lingxiao, 2021, S$594,220

Making Big Code Active: From Billions of Code Tokens to Automation, International Research Collaboration Grant, Singapore Data Science Consortium , PI (Project Level): David LO , Co-PI (Project Level): JIANG Lingxiao, 2020, S$631,344

Uncovering Vulnerabilities in Machine Learning Frameworks via Software Composition Analysis and Directed Grammar-Based Fuzzing, NSoE TSS Grant Call, National Satellite of Excellence - Trustworthy Software Systems , PI (Project Level): David LO , Co-PI (Project Level): JIANG Lingxiao, 2020, S$550,000

Making Software Development Language-Agnostic Through Cross-Language Mapping and Migration, The Royal Society - International Exchanges, The Royal Society , Co-PI (Project Level): JIANG Lingxiao, 2020, S$21,484.34

Research Programme on Computational Law, Smart Systems Strategic Research Programme, Industry Alignment Fund – Pre-Positioning (IAF-PP) Funding Initiative, Info-communications Media Development Authority of Singapore (IMDA) , PI (Project Level): WONG Meng Weng , Co-PI (Project Level): GOH Yihan, SC, LAU Kwan Ho, LIM How Khang, Jerrold SOH, 2019, S$15,189,082

DeepSense: Deep Media Sensing for Software API Recommendation, Academic Research Fund (AcRF) Tier 2, Ministry of Education (MOE) , PI (Project Level): David LO , Co-PI (Project Level): JIANG Lingxiao, 2019, S$723,960

A Novel Hybrid Kernel Symbolic Execution Framework For Malware Analysis, NSoE TSS Grant Call, National Satellite of Excellence - Trustworthy Software Systems , PI (Project Level): DING Xuhua , Co-PI (Project Level): JIANG Lingxiao, 2019, S$715,000

AutoPrivacyModel: Automated Feature Modelling for Identifying Illegitimate Uses of Privacy-Sensitive Data in Mobile Applications, NSoE MSS-CS Research Programme, National Satellite of Excellence - Mobile Systems Security and Cloud Security , PI (Project Level): JIANG Lingxiao , Co-PI (Project Level): David LO, SHAR Lwin Khin, DING Xuhua, Debin GAO, 2019, S$700,403

Automatic Inference of Software Transformation Rules for Automatically Back and Forward Porting Legacy Infrastructure Software (Itrans), NRF-ANR Joint Grant Call, National Research Foundation (NRF) , PI (Project Level): David LO , Co-PI (Project Level): JIANG Lingxiao, 2016, S$428,137.2

Secure Mobile Centre - Technologies and Solutions for Securing Mobile Computing, National Cybersecurity R&D (NCR) Programme, National Research Foundation (NRF) , PI (Programme Level): Robert H DENG , PI (Project Level): DING Xuhua, Debin GAO, JIANG Lingxiao, LI Yingjiu, David LO, PANG Hwee Hwa, 2014, S$6,415,200

Improving Clone Detection for Systems Software, Merlion Programme, Republique Francaise, Institut Fran&#xfffd;ais de Singapour , PI (Project Level): David LO , Co-PI (Project Level): JIANG Lingxiao, 2012, S$24,300

Towards Robust Evaluation of AI-Generated Code for Enterprise Software Systems, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): WYNTER Laura , Co-PI (Project Level): JIANG Lingxiao, 2025, S$150,000

Systematic Evaluation of the Trustworthiness of Agentic AI Systems, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): JIANG Lingxiao , Co-PI (Project Level): HUO Yintong, Christoph TREUDE, 2025, S$150,000

A-Things: Anomaly Analysis of the Internet of Things Applications, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): SHAR Lwin Khin , Co-PI (Project Level): David LO, JIANG Lingxiao, 2020, S$99,057

Testing and Verification of Artificial Intelligence Systems, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): David LO , Co-PI (Project Level): JIANG Lingxiao, SUN Jun, 2019, S$468,035

Semantic-Directed Deep Code Encoding for Smart Contract Debugging, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): JIANG Lingxiao , Co-PI (Project Level): David LO, 2017, S$149,370

Software Reuse Insights for IT Businesses through Software Library Recommendation, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): David LO , Co-PI (Project Level): JIANG Lingxiao, 2016, S$109,584

Other Institutions

Customizing and Optimizing C to Rust Transformation Rules based on Code Learning, Huawei Grant, Huawei Technologies (Ireland) Co., Ltd PI (Project Level): JIANG Lingxiao, 2022, SGD387,400

Making Software Development Language-Agnostic through Cross-Language Mapping and Migration, International Exchanges, The Royal Society PI (Project Level): JIANG Lingxiao, WANG Meng, Co-PI (Project Level): David LO, BUI DUY QUOC NGHI, Steven Ramsay, 2020, GBP12,000

Behavioral Modeling, Analysis, and Testing of Android Applications, LiveLabs, LiveLabs, SIS, SMU PI (Project Level): JIANG Lingxiao, 2016

Mobile Application Similarity and Programming Pattern Study, Internal Research Centre, Internal Research Centre, SIS, SMU PI (Project Level): JIANG Lingxiao, 2015

vSCA: Scalable Code Analysis via Vector Abstraction and Concretization, MOE AcRF Tier 1, National University of Singapore PI (Project Level): David LO, KHOO Siau-Cheng, Co-PI (Project Level): JIANG Lingxiao, 2014, SGD130,000

Software Code Similarity Detection and Analysis, DAAD (German Academic Exchange Service), DAAD (German Academic Exchange Service) PI (Project Level): JIANG Lingxiao, 2014, EUR2,000

Software Mining and Analysis, Internal Research Centre, Internal Research Centre, SIS, SMU PI (Project Level): JIANG Lingxiao, 2013

Modeling Group Learning Phenomena and Effects in Open-Source Software Developments, Internal Research Centre, Internal Research Centre, SIS, SMU PI (Project Level): David LO, Co-PI (Project Level): JIANG Lingxiao, 2013

Automated Bug Fixing Assistant, Internal Research Centre, Internal Research Centre, SIS, SMU PI (Project Level): David LO, Co-PI (Project Level): JIANG Lingxiao, 2013

Software Mining and Analysis, Internal Research Centre, Internal Research Centre, SIS, SMU PI (Project Level): JIANG Lingxiao, 2012

Semantic-Aware Mining of Software Clones, LEE Foundation, LEE Foundation, SMU PI (Project Level): JIANG Lingxiao, 2010, SGD10,000

Software Mining and Analysis, Internal Research Centre, Internal Research Centre, SIS, SMU PI (Project Level): JIANG Lingxiao, 2010

TEACHING

Teaching Areas

Enterprise Solution Development, Enterprise Integration, IS Application Project, Object Oriented Application Development, Software Engineering, Program Analysis, Data Mining, Information Security

Courses Taught

Singapore Management University

Undergraduate Programmes :

- Enterprise Solution Development

Postgraduate Professional Programmes :

- Capstone Project - Software and Cyber-Physical Systems

Postgraduate Research Programmes :

- Empirical Research Project 1
- Empirical Research Project 2
- Empirical Research Project 3
- Empirical Research Project 4
- Empirical Research Project I
- Empirical Research Project II
- Software Mining and Analysis

Other Institutions

- Algorithms & data structures, C/C++/Java programming, digital signal processing, and image processing, Undergraduate, Peking University
- Object-oriented programming, Undergraduate, University of California, Davis

THESES AND DISSERTATIONS

Theses and Dissertations Supervised

Other Institutions

Supervisor, "Unrooted Dynamic Monitor of Android App UIs for Fine-Grained Privacy Protection", Thesis by DUAN Mulin, Master of Science in Computing, Singapore Management University, 2021

Supervisor, "Novel Deep Learning Methods Combined with Static Analysis for Source Code Processing", Dissertation by BUI Duy Quoc Nghi, Singapore Management University, 2020

Supervisor, "Uncovering user-triggered privacy leaks in mobile applications and their utility in privacy protection", Thesis by Joo Keng Joseph CHAN, Master of Philosophy in Information Systems, Singapore Management University, 2016

Theses and Dissertations Assessed

Singapore Management University

Committee Member, "Overfitting in Automated Program Repair: Challenges and Solutions", Dissertation by LE DINH XUAN BACH, PhD in Information Systems, Singapore Management University, 2018

Committee Member, "Recommending APIs for Software Evolution", Dissertation by FERDIAN THUNG, PhD in Information Systems, Singapore Management University, 2018

Committee Member, "Fusion Based Approaches for Software Fault Localization and Specification Mining", Dissertation by LE BUI TIEN DUY, PhD in Information Systems, Singapore Management University, 2017

Committee Member, "Testing and Debugging: A Reality Check", Dissertation by PAVNEET SINGH KOCHHAR, PhD in Information Systems, Singapore Management University, 2017

Committee Member, "Mining Bug Repositories for Automatic Software Bug Management: From Bug Triaging to Patch Backporting", Dissertation by TIAN YUAN, PhD in Information Systems, Singapore Management University, 2017

Committee Member, "Multimodal Code Search", Dissertation by WANG SHAOWEI, PhD in Information Systems, Singapore Management University, 2015

Committee Member, "Ranking-based Approaches for Localizing Faults", Dissertation by LUCIA, PhD in Information Systems, Singapore Management University, 2014

Other Institutions

External Examiner, "Decoding the DNA of Code: An Ai-Infused Approach to Detect Code Cloning in Software Systems", Dissertation by Nikita Mehrotra, PhD, Indraprastha Institute of Information Technology Delhi, 2024

External Examiner, "Graph Representation Learning for Security Analytics in Decentralized Software Systems and Social Networks", Dissertation by Eric Huu Hoang Nguyen, PhD, Gottfried Wilhelm Leibniz Universität Hannover, 2024

External Examiner, "A Fact-Based Approach to Software Evolution", Dissertation by Wu Xiuheng, PhD, Nanyang Technological University, 2023

Committee Member, "DeepCause: Verifying Neural Networks with Abstraction Refinement", Thesis by NGUYEN Hua Gia Phuc, Master of Philosophy in Computer Science, Singapore Management University, 2022

Committee Member, "Investigating Imperative Code In F# Projects", Thesis by Gregory GAO Zhan, Master of Science in Computing, Singapore Management University, 2022

Committee Member, "A Novel Fuzzing Approach for Detecting Software Anomalies in UAVs", Thesis by Wei MINN, Bachelor of Science in Information Systems, Singapore Management University, 2022

Committee Member, "Analyzing Vulnerabilities in Deep Learning Libraries and Their Exploits", Thesis by Jonathan OOI Kwan Weng, Master of Science in Computing, Singapore Management University, 2021

Committee Member, "Endpoint Detection System for PUB Industrial Control System", Thesis by SIM Yuze, Master of Science in Computing, Singapore Management University, 2021

External Examiner, "Steps Towards Semantic Code Search", Dissertation by Kisub KIM, PhD in Computer Science, University of Luxembourg, 2021

Committee Member, "COVID-19 One Year On - Security and Privacy Review of Contact Tracing Mobile Apps", Thesis by Vincent ANG Wei Yang, Master of Science in Computing, Singapore Management University, 2021

Committee Member, "Statistical And Deep Learning Models For Software Engineering Corpora", Dissertation by HOANG Van Duc Thong, Singapore Management University, 2020

Committee Member, "Can We Make it Better? Assessing and Improving Quality of GitHub Repositories", Dissertation by Gede Artha Azriadi PRANA, PhD in Computer Science, Singapore Management University, 2017

Committee Member, "Exploiting Approximation, Caching and Specialization to Accelerate Vision Sensing Applications", Dissertation by HUYNH Nguyen Loc, PhD, Singapore Management University, 2014

Committee Member, "Multimodal Mobile Sensing Systems for Physiological and Psychological Assessment", Dissertation by HUYNH Nguyen Phan Sinh, PhD, Singapore Management University, 2014

Committee Member, "Using User Saliency for Effective OLED Display Power Management", Thesis by TAN Kiat Wee, Master of Philosophy in Information Systems, Singapore Management University, 2014

OTHER ACADEMIC AND PROFESSIONAL ACTIVITIES

Media Contributions and Citations

Securing smart contracts with AI and Machine Learning, Research Podcast, 01 Nov 2021
https://research.smu.edu.sg/researchsmu_podcast_securing-smart-contracts-with-AI-and-machine-learning

The intelligent gatekeeper of your private data, Research@SMU, 16 Nov 2020
https://research.smu.edu.sg/news/2020/nov/16/intelligent-gatekeeper-your-private-data

SMU researcher wins 2018 ACM SIGSOFT Impact Paper Award, Research@SMU, 01 Nov 2018
https://news.smu.edu.sg/news/2018/11/01/smu-researcher-wins-2018-acm-sigsoft-impact-paper-award

Building a Programmer’s Toolbox, Asian Scientist Magazine, 05 May 2016
http://www.asianscientist.com/2016/05/features/jiang-lingxiao-smu-programming-coding-deckard-autoquery/

UNIVERSITY SERVICE

Singapore Management University

Task Force Member, •Graduate Learning Outcomes (GLOs) Measurement Co-ordinating Group -- Critical Thinking & Problem Solving subgroup, Nov 2020 - Apr 2021

Committee Member, University Tribunal, Jul 2019 - Present

members and chair, REC and SEC, Jun 2019 - Present

Develop Interview Guide for Interviewers, SCIS Undergraduate Admission Interviews, Jan 2019 - Present

Committee Member, SCIS Faculty Search Committee, Oct 2018 - Jun 2021

Committee Member, Library Advisory Committee, Jan 2012 - Jul 2017

EXTERNAL SERVICE – PROFESSIONAL

Reviewer Journal Article, ACM Transactions on Software Engineering and Methodology (TOSEM, A*), IEEE Transactions on Software Engineering (TSE, A*), ACM Computing Surveys (CSUR, A*), Journal of Empirical Software Engineering (ESE/EMSE, A*), Journal of Systems and Software (JSS, A), Journal of Computer Science and Technology (JCST, Core B) , 2025

Conference Program Committees and Reviewers, International Conference on Software Engineering (ICSE, A*); ACM International Conference on the Foundations of Software Engineering (FSE, A*), Research track, Industry track, Ideas, Visions and Reflections (IVR) track, and Workshops track. IEEE/ACM International Conference on Automated Software Engineering (ASE, A*); International Conference on Software Maintenance and Evolution (ICSME, A); IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER, A) Tool Demo track; International Conference on Mining Software Repositories (MSR, A); AAAI Conference on Artificial Intelligence (AAAI, A*); Conference on Neural Information Processing Systems (NeurIPS, A*); ACM Student Research Competition (SRC) Grand Finals; International Conference on Object-Oriented Programming Systems, Languages, and Applications (OOPSLA, Core A), 2025

Reviewer Journal Article, IEEE Transactions on Software Engineering (TSE), ACM Transactions on Software Engineering and Methodology (TOSEM), Journal of Empirical Software Engineering (ESE/EMSE), Journal of Systems and Software (JSS), Automated Software Engineering Journal (ASE/AUSE), Journal of Software: Evolution and Process (JSEP/JSME), Journal of Computer Science and Technology (JCST), ACM Computing Surveys (CSUR), 2024

Member, Conference Program Committees, 46th International Conference on Software Engineering (ICSE) Research Track and Doctoral Symposium; 32nd ACM International Conference on the Foundations of Software Engineering (FSE) Research Track and Industry Track; 39th IEEE/ACM International Conference on Automated Software Engineering (ASE) Artifact Evaluation track; 40th International Conference on Software Maintenance and Evolution (ICSME); 21st International Conference on Mining Software Repositories (MSR); 31st Asia-Pacific Software Engineering Conference (APSEC); 38th Annual AAAI Conference on Artificial Intelligence (AAAI); , 2024

Editor Associate Editor, ACM Transactions on Software Engineering and Methodology (TOSEM), 2024 - Present

Workshop Organizer, Organization Committee, 35th IEEE International Symposium on Software Reliability Engineering (ISSRE) Workshops, 2023 - 2024

Co-Chair, Program Committee, ACM Student Research Competition (SRC) at ICSE 2023, 2023

Reviewer Journal Article, IEEE Transactions on Software Engineering (TSE), ACM Transactions on Software Engineering and Methodology (TOSEM), ACM TOSEM Replicated Computational Results (RCR) Reports Track, Journal of Empirical Software Engineering (EMSE), Communications of the ACM (CACM), Journal of Systems and Software (JSS), Journal of Software: Evolution and Process (JSEP), IEEE Transactions on Dependable and Secure Computing (TDSC), Blockchain: Research and Applications (BCRA), Engineering Applications of Artificial Intelligence (EAAI), Information and Software Technology (IST), SCIENCE CHINA Information Sciences, Journal of Computer Science and Technology (JCST), 2023

Member, Conference Program Committees, 45th International Conference on Software Engineering (ICSE) Research Track, ICSE Workshops, ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) Industry Track and Demo Track, 30th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER), 39th International Conference on Software Maintenance and Evolution (ICSME), 10th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft) Tool Demos Track, First International Workshop on Software Vulnerability Management (SVM) at ICSE, 17th International Workshop on Software Clones (IWSC), 14th Asia-Pacific Symposium on Internetware (Internetware), 30th Asia-Pacific Software Engineering Conference (APSEC) Research Track and Education Track, Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI), ACM Student Research Competition (SRC) Grand Finals, 2023

Reviewer Grant Proposal, Maritime AI Grant Call, Singapore Maritime Institute, 2022

Editorial Review Board Member, Journal of Computer Science and Technology (JCST), 2022 - Present

Member, Conference Program Committees, ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) Research Track and Industry Track, 38th International Conference on Software Maintenance and Evolution (ICSME), 29th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER), 29th Asia-Pacific Software Engineering Conference (APSEC), 16th International Workshop on Software Clones (IWSC), 13th Asia-Pacific Symposium on Internetware, 9th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft) Tool Demos Track, International Conference on Model-Driven Engineering and Software Development (MODELSWARD) Special Session on Effective Modelling and Implementation of Quantities (EMIQ), 2022

Reviewer Journal Article, IEEE Transactions on Software Engineering (TSE), ACM Transactions on Software Engineering and Methodology (TOSEM), Journal of Empirical Software Engineering (EMSE), Journal of Systems and Software (JSS), Automated Software Engineering Journal (AUSE), Journal of Computer Science and Technology (JCST), Information and Software Technology (IST), IEEE Transactions on Dependable and Secure Computing (TDSC), IEEE Transactions on Reliability (TR), Journal of Software: Evolution and Process (JSEP), Future Generation Computer Systems (FGCS), Frontiers of Computer Science (FCS), IEEE Transactions on Knowledge and Data Engineering (TKDE), Transactions on Intelligent Systems and Technology (TIST), Transactions on Network Science and Engineering (TNSE), 2022

Editor Associate Editor, Journal of Systems and Software (JSS), 2022 - Present

Reviewer Grant Proposal, National Science Center, Poland, 2021

Member, Conference Program Committees, 43rd International Conference on Software Engineering (ICSE) Tool Demonstrations, ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) Ideas, Visions and Reflections Track, 36th IEEE/ACM International Conference on Automated Software Engineering (ASE), 28th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER), 37th International Conference on Software Maintenance and Evolution (ICSME), 18th International Conference on Mining Software Repositories (MSR), 15th International Workshop on Software Clones (IWSC), Asia-Pacific Symposium on Internetware, 14th Innovations in Software Engineering Conference (ISEC), 2021

Reviewer Journal Article, IEEE Transactions on Software Engineering (TSE), ACM Transactions on Software Engineering and Methodology (TOSEM), Journal of Empirical Software Engineering (EMSE), Journal of Systems and Software (JSS), Automated Software Engineering Journal (AUSE), Journal of Software: Evolution and Process (JSEP), IEEE Transactions on Dependable and Secure Computing (TDSC), IEEE Transactions on Computational Social Systems (TCSS), Journal of Computer Science and Technology (JCST), IEEE Transactions on Reliability (TR), Information and Software Technology (IST), Frontiers of Computer Science (FCS), IEEE Access, Scientific Programming, Computational Intelligence (COIN), Transactions on Big Data (TBD), Transactions on Intelligent Systems and Technology (TIST), IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI), Journal of Security and Communication Networks (SCN), Transactions on Network Science and Engineering (TNSE), IEEE Systems Journal (ISJ), 2021

Editor Associate Editor, Automated Software Engineering Journal (AUSE), 2021 - Present

Co-Chair, Program Committee, 7th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft) Tool Demo Track, 2020

Member, Conference Program Committees, 42nd International Conference on Software Engineering (ICSE) Software Engineering In Practice (SEIP), 35th IEEE/ACM International Conference on Automated Software Engineering (ASE) Research Papers and Tool Demonstrations, 36th International Conference on Software Maintenance and Evolution (ICSME), 27th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER) Tool Demo Track and Late Breaking Ideas Track, 17th International Conference on Mining Software Repositories (MSR), 28th IEEE/ACM International Conference on Program Comprehension (ICPC), 20th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM), 13th Innovations in Software Engineering Conference (ISEC), 14th International Workshop on Software Clones (IWSC), National Software Application Conference (NASAC), 12th Asia-Pacific Symposium on Internetware, 27th Asia-Pacific Software Engineering Conference (APSEC), 7th International Workshop on Software Engineering Research and Industrial Practice, 2020

Reviewer Journal Article, IEEE Transactions on Software Engineering (TSE), ACM Transactions on Software Engineering and Methodology (TOSEM), Journal of Empirical Software Engineering (EMSE), Journal of Systems and Software (JSS), Journal of Software: Evolution and Process (JSEP), IEEE Transactions on Dependable and Secure Computing (TDSC), IEEE Transactions on Computational Social Systems (TCSS), Journal of Computer Science and Technology (JCST), ACM Transactions on Privacy and Security (TOPS), IEEE Transactions on Reliability (TR), Software: Practice and Experience (SPE), IEEE Transactions on Knowledge and Data Engineering (TKDE), IEEE Software, IEEE Access, 2020

Member, Conference Program Committees, 41st International Conference on Software Engineering (ICSE) Workshops, 26th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) New Ideas and Emerging Results (NIER) Track, 16th International Conference on Mining Software Repositories (MSR), 27th IEEE/ACM International Conference on Program Comprehension (ICPC), 12th Innovations in Software Engineering Conference (ISEC), 19th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM), 13th International Workshop on Software Clones (IWSC), 2019

Reviewer Journal Article, IEEE Transactions on Software Engineering (TSE), Journal of Empirical Software Engineering (EMSE), Journal of Knowledge and Information Systems (KAIS), Journal of Systems and Software (JSS), IEEE Transactions on Reliability (TR), IEEE Transactions on Computational Social Systems (TCSS), IEEE Transactions on Dependable and Secure Computing (TDSC), Journal of Computer Science and Technology (JCST), Journal of Security and Communication Networks (SCN), Journal of Hydroinformatics (HYDRO), International Journal of Technoentrepreneurship (IJTE), IET Software (SEN), China Communications (CNCOMM), Globalisation, Societies and Education (CGSE), International Symposium on Automated Technology for Verification and Analysis (ATVA), IEEE Access, 2019

Co-Chair, Conference Program Committee, 26th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER) Tool Demo Track, 2019

Reviewer Journal Article, IEEE Transactions on Software Engineering (TSE), ACM Transactions on Software Engineering and Methodology (TOSEM), Journal of Empirical Software Engineering (EMSE), Automated Software Engineering Journal (AUSE), Journal of Systems and Software (JSS), Journal of Software: Evolution and Process (JSEP), Journal of Knowledge and Information Systems (KAIS), Journal of Software and Systems Modeling (SoSyM), IEEE Transactions on Dependable and Secure Computing (TDSC), IEEE Transactions on Reliability (TR), Frontiers of Computer Science (FCS), Journal of Security and Communication Networks (SCN), Journal of Hydroinformatics (HYDRO), Ministry of Education (MOE) Translational R&D and Innovation Fund Grant Call, 52nd Hawaii International Conference on System Sciences (HICSS), 2018

Co-Chair, Program Committee, 25th Asia-Pacific Software Engineering Conference (APSEC) Early Research Achievements Track, 2018

Member, Conference Program Committees, 40th International Conference on Software Engineering (ICSE) Demonstrations Track, 26th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) New Ideas and Emerging Results (NIER) Track and Tool Demonstrations Track, 26th IEEE/ACM International Conference on Program Comprehension (ICPC), 11th Innovations in Software Engineering Conference (ISEC), 12th International Conference on Software Technologies (ICSOFT), 18th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM), 7th International Workshop on Software Mining (SoftwareMining-2018), 2018

Reviewer Journal Article, IEEE Transactions on Software Engineering (TSE), Automated Software Engineering Journal (AUSE), Journal of Empirical Software Engineering (EMSE), Journal of Software: Evolution and Process (JSEP), Journal of Systems and Software (JSS), Journal of Computer Science and Technology (JCST), Frontiers of Computer Science (FCS), IEICE Transactions on Information and Systems, International Journal of Web and Grid Services (IJWGS), International Journal of Advanced Intelligence Paradigms (IJAIP), IEEE Transactions on Knowledge and Data Engineering (TKDE), 2017

Member, Conference Program Committees, 39th International Conference on Software Engineering (ICSE), 33rd International Conference on Software Maintenance and Evolution (ICSME), 32nd IEEE/ACM International Conference on Automated Software Engineering (ASE) Tool Demonstration Track, 25th International Conference on Program Comprehension (ICPC), 10th Innovations in Software Engineering Conference (ISEC), 17th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM), 6th International Workshop on Software Mining, 2017

Local/Finance Chair, 31st International Conference on Automated Software Engineering (ASE 2016), IEEE/ACM, 2016