Yutian Tang

Assistant Professor (UK Lecturer) Senior Member, IEEE School of Computing Science
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Research Interests

Software Engineering (AIGC for SE, AI4SE, SE4AI, Program Analysis, Empirical Software Engineering, Software Component Analysis, Android); **Security** (Mobile Security, Fuzzing, Software Supply Chain Security)

Profile

Dr. Yutian Tang is an Assistant Professor (UK Lecturer) at the School of Computing Science, University of Glasgow, United Kingdom (PI, Ph.D. Supervisor). He received his Ph.D. degree from the Department of Computing, The Hong Kong Polytechnic University. His research interests include AI+SE (Large-language Model+SE), program analysis, empirical software engineering, privacy protection, and software testing. He is a senior member of IEEE, a member of ACM, CCF, European Alliance for Innovation (EAI), and EuroSys. He is also a member of EPSRC Peer Review College, a technical committee member of the IEEE Technical Committee on Software Engineering. He is also affiliated with Trustworthy Digital Identity Interest Group and Interpretation, Verification and Modelling Interest Group, The Alan Turing Institute. He also contributes to the IEEE Standards Association P1633 Working Group (IEEE Recommended Practice on Software Reliability).

Education

2013-2018 **Ph.D.**, Department of Computing, The Hong Kong Polytechnic University, Hong Kong SAR, China

Advisor • Full Prof. Xiapu Luo, and Dr. Hareton Leung (Associate Professor Emeritus)

2009-2013 B.Sc., Department of Computer Science and Technology, Jilin University, China

Research Positions

2023-Present Assistant Professor (UK Lecturer),

School of Computing Science, University of Glasgow,

Leading University in UK, Member of Russel Group, Top-100 University in the World Glasgow, Scotland, United Kingdom

2020-2022 Assistant Professor, School of Information Science and Technology, Shanghai Tech University, China

2018-2020 Post-doc Research Fellow, The Hong Kong Polytechnic University, Hong Kong SAR, China

Grants

Highly competitive grants are highlighted

Summary I have secured 7 research grants as solo PI or leading PI, which collectively amount to 401,696 (GBP)/543,405 (USD) in total. This sum does not include any start-up grants.

Research Grants Received.

Title	Period	Funding Scheme	Amount
Get Started Funding for re-	2025.09-	Lund University,	SEK 25,000
search collaborations	2026.09		(100%)
Google Cloud for Researchers	2024.09-	Google,	USD 5,000
	2025.09		(100%)
OpenAl's Researcher Access	2024.03-	Open AI,	USD 5,000
Program	2025.03		(100%)
Start-up Grant	2023.07-	University of Glasgow,	GBP 20,000
	2025.07		(100%)
Research on Android	2023.01-	National Natural Science	CNY 300,000
App Debloating with	2025.12	Foundation of China	(100%)
Multi-dimension, Multi-		(NSFC), China	
semantic Module Mining (No.			
62202306)			
Research on Mobile App Com-	2021.10-	Science and Technology	CNY 300,000
ponent Behavior Understand-	2023.09	Commission of Shanghai	(100%)
ing (No. 21PJ1410700)		Municipality, China	
Early-career Research Fund	2020.10-	ShanghaiTech University,	CNY
(No. 2020F0203-000-14)	2026.10	China	3,000,000
			(100%)

As Solo or Leading Principal Investigator (7)

LG7 Get Started Funding

Agency/Company: Lund University

Grant amount: 25,000 SEK

Role: PI, with Professor Per Runeson from Lund University

Contract period: 2025.09-2026.09

Share: 100%

LG6 Google Cloud for Researchers Program

Agency/Company: Google

Grant amount: \$5000 (in API credit)

Role: Solo PI

Contract period: 2024.09-2025.09

Share: 100%

LG5 OpenAI's Researcher Access Program

Agency/Company: OpenAl

Grant amount: \$5000 (in API credit)

Role: Solo PI

Contract period: 2024.03-2025.03

Share: 100%

LG4 Start-up Research Grant, University of Glasgow

Agency/Company: University of Glasgow

Grant amount: 20,000 GBP

Role: PI

Collaborators: Yutian Tang (PI) Contract period: 2023-2025

Share: 100%

LG3 Research on Android App Debloating with Multi-dimension, Multi-semantic Module

Mining (No. 6220072429)

Agency/Company: National Natural Science Foundation of China (NSFC) - Youth

Program

Grant amount: 300,000 CNY

Role: PI

Collaborators: Yutian Tang (PI) Contract period: 2023.01-2025.12

Share: 100%

Success Rate: 17.29%

LG2 Vulnerable Components Detection for Apps (No. 21PJ1410700)

Agency/Company: Shanghai Pujiang Program, Science and Technology Commission

of Shanghai Municipality Grant amount: 300,000 CNY

Role: PI

Collaborators: Yutian Tang (PI) Contract period: 2021.10-2023.09

Share: 100%

LG1 Early Career Research Fund (No.2020F0203-000-14)

Agency/Company: ShanghaiTech University

Grant amount: 3 million CNY

Role: PI

Collaborators: Yutian Tang (PI) Contract period: 2020-2023

Share: 100%

As Participants (2)

PG2 Improving Mobile Users' Privacy Decisions via Exposing Unexpected Sensitive Oper-

ations in Hardened Apps

Agency/Company: Research Grants Council GRF, Hong Kong

Grant amount: 416,667 HKD

Role: Participant

Collaborators: Xiapu Luo (PI) Contract period: 2018-2020

Share: Not available

PG1 Research and Development of An Advanced IPS System for Aftermarket Telematics

Agency/Company: Innovation and Technology Fund (ITF), Hong Kong

Grant amount: 2,386,066 HKD (including 1,899,340 HKD from ITF and 486,726

from company sponsor);

Role: Participant

Collaborators: Xiapu Luo (PI) Contract period: 2018-2020

Share: Not available

Publications

Summary According to Google Scholar, my works attracted more than 1,108 citations, my h-index is 17. In the domain of software engineering, the most prestigious venues are IEEE TSE, ACM TOSEM, ASE, OOPSLA, ICSE, ISSTA, ESEC/FSE, CCS, and WWW.

Google https://scholar.google.com/citations?user=cgdLmTUAAAAJ Scholar

Top-tier ESEC/FSE (1); WWW (1); ASE (4); IEEE TSE (10), ACM TOSEM (1), OOPSLA Conf./Journal (1), ISSTA (1); (19)

JCR-Q1 (15), Core-A/A*(16), CCF-A (19), CORE-B(9), CORE-C(1), CCF-B(15), CCF-C(6)

★ for the corresponding author, (stu) for my students under my supervision

Selected Papers are highlighted

Pre-print Papers (2)

- P.1 Yongkun Liu, Jiachi Chen, Tingting Bi, John Grundy, Yanlin Wang, Ting Chen, **Yutian Tang**, Zibin Zheng, "An Empirical Study on Low Code Programming using Traditional vs Large Language Model Support", *arXiv preprint arXiv:2402.01156*, pp. 1-12;
- P.2 Zhichao Zhou, **Yutian Tang**, Yun Lin, and Jingzhu He. "An LLM-based Readability Measurement for Unit Tests' Context-aware Inputs." *arXiv preprint arXiv:2407.21369* (2024).

Refereed Conference Papers (24);

C.24 David Romero Organvídez, Oscar Díaz, **Yutian Tang**, David Benavides. "Feedback Analysis in Software Product Line Forked Developments", *ACM International System and Software Product Line Conference (SPLC)*,2025;

- C.23 Zhijie Liu^(stu.), Qiyi Tang, Sen Nie, Shi Wu, Liangfeng Zhang, **Yutian Tang***. "KEENHash: Hashing Programs into Function-aware Embeddings for Large-scale Binary Code Similarity Analysis", *ACM SIGSOFT International Symposium on Software Testing and Analysis (ISSTA)*,2025 CORE-A,CCF-A;
- C.22 **Yutian Tang**, Hongchen Cao, Yuxi Chen, David Lo. "Characterising Bugs in Jupyter Platform", *International Conference on Evaluation and Assessment in Software Engineering (EASE),2025* CORE-A,CCF-B;
- C.21 Yuchen Ji, Ting Dai, Zhichao Zhou, Yutian Tang, Jingzhu He. "Artemis: Toward Accurate Detection of Server-Side Request Forgeries through LLM-Assisted Inter-Procedural Path-Sensitive Taint Analysis", The Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA),2025 CORE-A, CCF-A, Top 1 conference in SE;
- C.20 Yuchen Ji, Ting Dai, Yutian Tang, Jingzhu He, "Whether We Are Good Enough to Detect Server-Side Request Forgeries in PHP-native Applications?", ACM Conference on Computer and Communications Security (CCS) Poster Track, 2024;
- C.19 Zhijie Liu^(stu.), Liangfeng Zhang, Yutian Tang*, "Enhancing Malware Detection for Android Apps: Detecting Fine-granularity Malicious Components", IEEE/ACM Automated Software Engineering (ASE) Conference, 2023: pp. 1212–1224 CORE-A*, CCF-A, Top 3 conference in SE;
- C.18 Zhichao Zhou^(stu.), Yuming Zhou, Chunrong Fang, Zhenyu Chen, **Yutian Tang***, "Selectively Combining Multiple Coverage Goals in Search-Based Unit Test Generation", 35th IEEE/ACM International Conference on Automated Software Engineering (ASE),2022: pp. 1-12 CORE-A*, CCF-A, Top 3 conference in SE;
- C.17 Guosheng Xu, Siyi Li, Hao Zhou, Shucen Liu, **Yutian Tang**, Li Li, Xiapu Luo, Xusheng Xiao, Guoai Xu and Haoyu Wang, "Lie to Me: Abusing the Mobile Content Sharing Service for Fun and Profit", *The Web Conference (WWW)*, 2022: pp. 3327–3335, CORE-A*, CCF-A;
- C.16 Zejun Wu, Chao Ma, Xiaochuan Shi, Libing Wu, Dian Zhang, Yutian Tang, "BRNN-GAN: Generative Adversarial Networks with Bi-directional Recurrent Neural Networks for Multivariate Time Series Imputation", IEEE International Conference on Parallel and Distributed Systems, 2021: pp. 217-224, CORE-B, CCF-C;
- C.15 Kunsong Zhao, Zhou Xu, Meng Yan, Yutian Tang, Ming Fan, Gemma Catolino, "Just-in-Time Defect Prediction for Android Apps via Imbalanced Deep Learning Model", The 36th ACM/SIGAPP Symposium On Applied Computing, 2021: pp 1447-1454.
- C.14 Hao Zhou, Haoyu Wang, Yajin Zhou, Xiapu Luo, Yutian Tang, Lei Xu, Ting Wang, "Demystifying Diehard Android Apps", 35th IEEE/ACM International Conference on Automated Software Engineering (ASE),2020: pp. 187-198 CORE-A*, Top 3 conference in SE,CCF-A;
- C.13 Kunsong Zhao, Zhou Xu, Tao Zhang, Yutian Tang, "Simplified Deep Forest Model based Just-In-Time Defect Prediction for Android Mobile Apps", 20th International Conference on Software Quality, Reliability, and Security (QRS), 2020, CORE-B, CCF-C;

- C.12 Yutian Tang, Yulei Sui, Haoyu Wang, Xiapu Luo, Hao Zhou, Zhou Xu, "All Your App Links (are) Belong to Us: Understanding the Threats of Instant Apps based Attacks", The ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE),2020, CORE-A*, Top 2 conference in SE, the vulnerability reported is confirmed by Google,CCF-A;
- C.11 Yan Cai, **Yutian Tang**, Haicheng Li, Le Yu, Hao Zhou, Xiapu Luo, Liang He, Purui Su, "Resource Race Attacks on Android", 27th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER),2020, CORE-A, the vulnerability reported is confirmed by Google, CCF-B;
- C.10 Yutian Tang, Xian Zhan, Hao Zhou, Xiapu Luo, Zhou Xu, Yajin Zhou, Qiben Yan, "Demystifying Application Performance Management Libraries for Android", The 34th IEEE/ACM International Conference on Automated Software Engineering (ASE), pp. 682-685, 2019, CORE-A*, CCF-A;
 - C.9 Zhou Xu, Sizhe Ye, Tao Zhang, Zhen Xia, Shuai Pang, Yong Wang, Yutian Tang, "MVSE: Effort- Aware Heterogeneous Defect Prediction via Multiple-View Spectral Embedding", 19th International Conference on Software Quality, Reliability, and Security (QRS),pp. 10-17, 2019, CORE-B,CCF-C
 - C.8 Zhou Xu, Shuai Pang, Yifeng Zhang, Yutian Tang, Jin Liu, Xiapu Luo, Jacky Keung, Xiaohui Cui, "Identifying Crashing Fault Residence Based on Cross Project Model", International Symposium on Software Reliability Engineering (ISSRE), pp. 183-194, 2019, CORE-A, CCF-B;
 - C.7 Xian Zhan, Tao Zhang, Yutian Tang, "A Comparative Study of Android Repackaged Apps Detection Techniques", 2019 IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER),pp. 321-331, 2019, CORE-A,CCF-B:
- C.6 Xuejiao Zhao, Hongwei Li, Yutian Tang, Dongjing Gao, Lingfeng Bao, Chinghung Lee, "A Smart Context-aware Program Assistant based on Dynamic Programming Event Modeling", The 29th IEEE International Symposium on Software Reliability Engineering (ISSRE), pp 24-29, 2018, CORE-A, Best Industrial Paper Award, CCF-B;
- C.5 Zhou Xu, Shuai Li, Yutian Tang, Xiapu Luo, Tao Zhang, Jin Liu, Jun Xu, "Cross Version Defect Prediction with Representative Data via Sparse Subset Selection",26th IEEE/ACM International Conference on Program Comprehension (ICPC), 2018, CORE-A,CCF-B;
- C.4 Yutian Tang, Hareton Leung, "Constructing Feature Model by Identifying Variability-aware Modules", 25th IEEE/ACM International Conference on Program Comprehension (ICPC), pp. 263-274, 2017, CORE-A, CCF-B;
- C.3 Yutian Tang, Hareton Leung, "StiCProb: A Novel Feature Mining Approach using Conditional Probability", 24th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER), pp. 45-55, 2017, CORE-A, CCF-B
- C.2 Yutian Tang, Hareton Leung, "Feature Mining for Product Line Construction", The First International Conference on Advances and Trends in Software Engineering (SOFTENG), pp.29-33, 2015;

C.1 Yutian Tang, Hareton Leung, "A Top-down Feature Mining Framework for Software Product Line", 17th International Conference on Enterprise Information Systems (ICEIS), pp.71-81, 2015;

Refereed Journal Articles (22)

- J.22 Zhijie Liu^(stu.), **Yutian Tang***, Meiyun Li, Xin Jin, Yunfei Long, Liang Feng Zhang, Xiapu Luo"LLM-CompDroid: Repairing Configuration Compatibility Bugs in Android Apps with Pre-trained Large Language Models", *ACM Transactions on Software Engineering and Methodology*, 2025, Top-1 Journal in SE field, IF=6.6, JCR-Q1, CCF-A
- J.21 Yutian Tang, Xiapu Luo, Yuming Zhou, "A Systematic Study on Real-world Android App Bundles", IEEE Transactions on Software Engineering, 2025, Top-1 Journal in SE field, CCF-A, JCR-Q1
- J.20 Xutong Liu, Yufei Zhou, Yutian Tang, Junyan Qian, Yuming Zhou. "Human-in-the-loop online just-in-time software defect prediction:What have we achieved and what do we still miss?", Science of Computer Programming, CCF-B, 2025
- J.19 Jianzhong Su, Jiachi Chen, Zhiyuan Fang, Xingwei Lin, **Yutian Tang**, and Zibin Zheng. "SmartOracle: Generating Smart Contract Oracle via Fine-Grained Invariant Detection." IEEE Transactions on Software Engineering, 2025, Top-1 Journal in SE field, JCR-Q1, CCF-A
- J.18 Jinan Jiang, Zihao Li, Haoran Qin, Muhui Jiang, Xiapu Luo, Xiaoming Wu, Haoyu Wang, **Yutian Tang**, Chenxiong Qian, Ting Chen, "Unearthing Gas-Wasting Code Smells in Smart Contracts with Large Language Models", IEEE Transactions on Software Engineering, 2024, Top-1 Journal in SE field, CCF-A, JCR-Q1
- J.17 Zhichao Zhou^(stu.), Yuming Zhou, Chunrong Fang, Zhenyu Chen, Xiapu Luo, Jingzhu He, **Yutian Tang***, "Coverage Goal Selector for Combining Multiple Criteria in Search-Based Unit Test Generation", *IEEE Transactions on Software Engineering*, 2024, Top-1 Journal in SE field, IF=9.322, JCR-Q1, CCF-A
- J.16 Zhijie Liu^(stu.), **Yutian Tang***, Xiapu Luo, Yuming Zhou, Liang Feng Zhang, "No Need to Lift a Finger Anymore? Assessing the Quality of Code Generation by ChatGPT", *IEEE Transactions on Software Engineering* Top-1 Journal in SE field, IF=9.322, JCR-Q1, CCF-A
- J.15 **Yutian Tang***, Zhijie Liu^(stu.), Zhichao Zhou^(stu.), Xiapu Luo, "ChatGPT vs SBST: A Comparative Assessment of Unit Test Suite Generation", *IEEE Transactions on Software Engineering*, 2024, Top-1 Journal in SE field, IF=9.322, JCR-Q1, CCF-A
- J.14 Yang Wang, Peng Zhang, Zeyu Lu, Yibiao Yang, **Yutian Tang**, and Yuming Zhou, "Uncovering bugs in code coverage profilers via control flow constraint solving", *IEEE Transactions on Software Engineering*, 2023, Top-1 Journal in SE field, IF=9.322, JCR-Q1, CCF-A
- J.13 Yuanqing Mei, Yi Rong, Shiran Liu, Zhaoqiang Guo, Yibiao Yang, Hongmin Lu, **Yutian Tang**, and Yuming Zhou, "Deriving thresholds of object-oriented metrics to predict defect-proness of classes: A large-scale meta-analysis", *International Journal of Software Engineering and Knowledge Engineering*, 33, no. 05 (2023): 651-695 IF=1.01, CCF-C

- J.12 Hongchen Chao^(stu), Shuai Li, Yuming Zhou, Ming Fan, Xuejiao Zhao, **Yutian Tang***, "Cheating Your Apps: Black-box Adversarial Attacks on Deep Learning Apps", *Journal of Software: Evolution and Process, 2023*, CCF-B, IF=1.932
- J.11 Le Yu, Haoyu Wang, Xiapu Luo, Tao Zhang, Kang Liu, Jiachi Chen, Hao Zhou, Yutian Tang, Xusheng Xiao, "Towards Automatically Localizing Function Errors in Mobile Apps with User Reviews", *IEEE Transactions on Software Engineering, 49, no. 4 (2022): 1464-1486* Top-1 Journal in SE field, CCF-A, IF=9.322, JCR-Q1
- J.10 Jian Huang, Shanhui Liu, Yutian Tang*, Xiushan Zhang, "Object-Level Remote Sensing Image Augmentation Using U-Net-Based Generative Adversarial Networks", Wireless Communication and Mobile Computing, 2021 (2021): 1-12, CCF-C, IF=2.146
- J.9 Yutian Tang, Hao Zhou, Xiapu Luo, Ting Chen, Haoyu Wang, Zhou Xu, and Yan Cai, "XDebloat: Towards Automated Feature-Oriented App Debloating", IEEE Transactions on Software Engineering, 48, no. 11 (2021): 4501-4520 Top-1 Journal in SE field, IF=9.322, JCR-Q1, CCF-A
 Top-1 Recommended Paper from Bing AI for app debloating topic
- J.8 Zhen Yang, Jacky Keung, Md Alamgir Kabir, Xiao Yu, Yutian Tang, Miao Zhang, Shuo Feng, "AComNN: Attention Enhanced Compound Neural Network For Financial Time-Series Forecasting With Cross-Regional Features", Applied Soft Computing, 111 (2021): 107649. JCR-Q1, IF=5.47
- J.7 Kunsong Zhao, Zhou Xu, Tao Zhang, Yutian Tang, Meng Yan, "Simplified Deep Forest Model based Just-In-Time Defect Prediction for Android Mobile Apps", IEEE Transactions on Reliability, 70, no. 2 (2021): 848-859, JCR-Q1,CCF-B, IF=5.883
- J.6 Yutian Tang*, Haoyu Wang, Xian Zhan, Xiapu Luo*, Yajin Zhou, Hao Zhou, Qiben Yan, Yulei Sui, Jacky Keung, "A Systematical Study on Application Performance Management Libraries for Apps", *IEEE Transactions on Software Engineering*, 2021, 48(8), pp. 3044 3065 Top-1 Journal in SE field, CCF-A, JCR-Q1, IF=9.322;
- J.5 Zhou Xu, Tao Zhang, Jacky Keung, Meng Yan, Xiapu Luo, Xiaohong Zhang, Ling Xu, Yutian Tang, "Feature Selection and Embedding Based Cross Project Framework for Identifying Crashing Fault Residence" Information and Software Technology (IST), 131 (2021): 106452, JCR-Q1, CCF-B, IF=3.862
- J.4 Zhou Xu, Shuai Li, Jun Xu, Jin Liu, Xiapu Luo, Yifeng Zhang, Tao Zhang, Jacky Keung, Yutian Tang, "LDFR: Learning deep feature representation for software defect prediction", Journal of Systems and Software (JSS), 158 (2019), 110402 JCR-Q1, CCF-B, IF=3.514
- J.3 Zhou Xu, Shuai Pang, Tao Zhang, Xiapu Luo, **Yutian Tang**, Xiao Yu, Lei Xue, "Cross Project Defect Prediction via Balanced Distribution Adaptation based Transfer Learning", Journal of Computer Science and Technology (JCST), 34 (2019): pp. 1039-1062, IF=1.87,CCF-B
- J.2 Zhou Xu, Shuai Li, Xiapu Luo, Jin Liu, Tao Zhang, Yutian Tang, Jun Xu, Peipei Yuan, Jacky Keung, "TSTSS: A Two-Stage Training Subset Selection Framework for Cross Version Defect Prediction", Journal of System and Software (JSS), 154 (2019): pp. 59-78, JCR-Q1; IF=3.514, CCF-B

J.1 Zhou Xu, Jin Liu, Xiapu Luo, Zijiang Yang, Yifeng Zhang, Peipei Yuan, Yutian Tang, Tao Zhang, "Software Defect Prediction Based on Kernel PCA and Weighted Extreme Learning Machine", Information and Software Technology (IST), 106 (2019), pp. 182-200. JCR-Q1; IF=3.862, CCF-B

Software Copyright

C.1 Yutian Tang, Zhijie Liu, "Big Data-Based Mobile Application Malicious Component Detection System V1.0", Software Copyright, 2023, Authorized by: National Copyright Administration of P.R.China.

Patents 4 8 1

P.1 **Yutian Tang**, Zhijie Liu, Liangfeng Zhang, "Advanced Methods for Detecting Malicious Elements in Mobile Apps Using Big Data Analytics", Chinese Patent.

Software

- S.1 Yutian Tang, WorkBuddy, Google Chrome Extension, 2024, https://chromewebstore.google.com/detail/workbuddy/ hihenendbjafpikbhakolegagkamdgjo
- S.2 Yutian Tang, Healthy Eye Reminder, Google Chrome Extension, 2024,https://chromewebstore.google.com/detail/healthy-eye-reminder/kmjheafpaclgijopjfoofbaodmiglkhd?hl=en&authuser=0

Impact and Engagement

International Stands Working Group/Committee

Standard IEEE Standard P1633 Working Group: (Recommended Practice for Software Working Reliability)

Group

Member

Grant/Award Review Panelist

Fellowship Green Future Fellowships Assessor, 2024, UK

Accessor

Grant Engineering and Physical Sciences Research Council (EPSRC) Standard Re-Reviewer search Grant 2024, UK

Grant Engineering and Physical Sciences Research Council (EPSRC) New Investi-

Reviewer gator Award 2024, UK

Member Engineering and Physical Sciences Research Council (EPSRC) Peer Review College (Members will service as grant review panelists for EPSRC proposals), UK EPSRC Research Grant Review Panelist 2023 - now

Award Shanghai Science and Technology Award (Top-1 award in Shanghai in field Panelist of Sci. and Tech.), 2022

Grant Review Shanghai Innovation Grant for Small and medium-sized Enterprises, 2021
Panelist

Grant Review National Natural Science Foundation of China (NSFC), 2023 - now **Panelist** Grant Review National Natural Science Foundation of China (NSFC), 2025: General Program **Panelist** Interview/Assessment Panel SyMeCo Lero, the SFI Research Centre for Software, 2025 Marie Skłodowska-Curie Postdoctoral **Fellowship** Programme Review Panel IEEE Senior Member Virtual Review Panel 2025 Editorship Review Editor Frontiers in Computer Science (ESCI Indexed), 2021-now Review Editor Scientific Programming, 2022-now School and University Admin Co-Impact Education and Practice (EAP) Section, School of Computing Science, University of Champion Glasgow, 10/2024 - now Technical Committee Member & Interest Group Committee CCF-Technical Committee of Software Engineering Member Committee CCF-Technical Committee of System Software Member Committee Shanghai Computer Society-Technical Committee of Software Engineering Member Technical IEEE Technical Committee on Software Engineering (TCSE) Committee Member Trustworthy The Alan Turing Institute Digital Identity Interest Group Interpretation, The Alan Turing Institute Verification and Modelling

Organizing Committee Member

Interest Group

- 2025 [1] International Conference on Evaluation and Assessment in Software Engineering (EASE) 2026, Doctoral Consortium Co-Chair
- 2024 **[1] International Conference on Internetware (Internetware) 2024**, Publicity Co-Chair

Conference Technical Program Committee (TPC) Member (42 in total)

2026 [1] 48th International Conference on Software Engineering (ICSE) Core A*, Top-1 in Software Engineering

Research Track

[2] ACM International Conference on the Foundations of Software Engineering (FSE) (formerly known as ESEC/FSE) Core A^*

Research Track

[3] Mining Software Repositories 2026 Core A

Research Track

2025 [1] 47th International Conference on Software Engineering (ICSE) Core A*, Top-1 in Software Engineering

Research Track

[2] The IEEE/ACM Automated Software Engineering (ASE) Core A*, Top-1 in Software Engineering

Research Track

[3] Mining Software Repositories 2025 Core A

Research Track

[4] The Web Conference (a.k.a WWW) Core A*

Research Track

- [5] IEEE/ACM International Conference on Automated Software Engineering Core A*
- [6] 32nd Asia-Pacific Software Engineering Conference (APSEC) Research Track;
- [7] Program Committee, International Conference on Software Engineering & Knowledge Engineering 2024 Core B

Research Track;

2024 [1] ACM International Conference on the Foundations of Software Engineering (FSE) (formerly known as ESEC/FSE) Core A*

Research Track

[2] 39th IEEE/ACM International Conference on Automated Software Engineering (ASE) Core A*

Research Track

[3] International Working Conference on Variability Modelling of Software-Intensive Systems

Research Track;

- [4] International Conference on Program Comprehension (ICPC) Core A Research Track;
- [5] The IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER) Core A

ERA Track;

- [6] Program Committee, 36th International Conference on Advanced Information Systems Engineering (CAiSE) Core A
- [7] Program Committee, ACM TheWebConf 2024 Core A* Research Track (System Track);
- [8] Program Committee, International Conference on Software Engineering & Knowledge Engineering 2024 Core ${\sf B}$

Research Track;

[9] 31st Asia-Pacific Software Engineering Conference (APSEC) Research Track;

2023 [1] The ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) Core A*

Research Track

Student Research Competition Track

[2] 38th IEEE/ACM International Conference on Automated Software Engineering (ASE) Core A*

Research Track

The New Ideas and Emerging Results (NIER) Track

[3] IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER) Core A

Research Track, Tool Demo Track

- [4] International Conference on Program Comprehension (ICPC) Core A Research Track;
- [5] International Conference on Software Engineering & Knowledge Engineering, (SEKE) Core ${\sf B}$

Research Track;

[6] 2023 International Conference on Evaluation and Assessment in Software Engineering (EASE) Core A

Research Track;

[7] 20th International Conference on Mining Software Repositories (MSR) Core A

Research Track, Industry Track;

- [8] Programming Language Design and Implementation (PLDI) Core A* Artefact Evaluation Track
- [9] 35th International Conference on Advanced Information Systems Engineering (CAiSE) 2023; Core A

Research Track

[10] Program Committee, IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft): 2023;

Research Track;

[11] International Working Conference on Variability Modelling of Software-Intensive Systems

Research Track:

[12] 30th Asia-Pacific Software Engineering Conference (APSEC) Research Track;

- 2022 [1] The ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) Core A*

 Artefact Evaluation Track
 - [2] Programming Language Design and Implementation (PLDI) Core A* Artefact Evaluation Track
 - [3] International Conference on Software Engineering (ICSE) Core A*
 Artefact Evaluation Track
 - [4] International Conference on Program Comprehension (ICPC) Core A Research Track;
 - [5] IEEE/ACM International Conference on Mobile Software Engineering and Systems (MobileSoft)

Research Track, Industry Track;

[6] International Conference on Software Engineering & Knowledge Engineering, (SEKE) Core A

Research Track;

- [7] International Conference of Modern Systems Engineering Solutions Research Track
- [8] Future Technologies Conference

Research Track

[9] Computing Conference

Research Track

2021 [1] The ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) Core A*

Artefact Evaluation Track

[2] CCF Chinasoft Conference (ChinaSoft)

Software & Data Intelligence Track

Journal Reviewer (17 in total)

Reviewer IEEE Transactions on Dependable and Secure Computing, 2023, 2024

Reviewer Journal of Computer Security, 2022, 2023

Reviewer IEEE Transactions on Reliability, 2022

Reviewer ACM Transactions on Software Engineering and Methodology (TOSEM), 2022 - now

Reviewer IEEE Communication Magazine, 2021;

Reviewer IEEE Transactions on Software Engineering, 2020 - now;

Reviewer Automated Software Engineering (ASE), 2022, 2023;

Reviewer Empirical Software Engineering (EMSE), 2022 - 2024

Reviewer Frontier of Computer Science, 2020, 2021, 2023

Reviewer SN Applied Sciences, 2022

Reviewer Scientific Programming, 2022 - 2024

Reviewer The Journal of System and Software, 2020, 2021, 2023

Reviewer Frontiers of Information Technology & Electronic Engineering, 2022, 2023

Reviewer SCIENCE CHINA Information Sciences, 2021, 2023

Reviewer IEEE Access, 2017, 2023

Reviewer IEEE Software, 2024

Reviewer Security and Communication Networks, 2023

Ad-hoc Journal of Information Technology Research, 2020, 2023;

Reviewer

Sub-reviewer IEEE Transactions on Services Computing, IEEE Transactions on Biometrics, Behavior and Identity Science

Conference Session Chairs

Session Chair The ACM SIGSOFT International Symposium on Software Testing and Analysis (ISSTA), 2025

Session Chair IEEE/ACM International Conference on Software Engineering (ICSE), 2025

Session Chair ACM International Conference on the Foundations of Software Engineering (FSE), 2024

Awards & Recognition

- 2025 Fellow, Recognizing Excellence in Teaching, University of Glasgow, 2025
- 2024 Google Cloud Credit Award, 2024
- 2024 OpenAl Researcher Access Program, 2024
- 2023 **Best Reviewer Award**, Asia-Pacific Software Engineering Conference (APSEC), 2023
- 2021 **Shanghai Pujiang Talent Program**, Science and Technology Commission of Shanghai Municipality
- 2018 **Best Industry Paper Award** International Symposium on Software Reliability Engineering, Paper: "A Smart Context-aware Program Assistant based on Dynamic Programming Event Modeling"
- 2013–2017 **Ph.D. Scholarships**, The Hong Kong Polytechnic University
 - 2012 Undergraduate Research Award, First Prize, Jilin University
 - 2012 Undergraduate Scholarships, Second Prize, Jilin University
 - 2011 Undergraduate Scholarships, Third Prize, Jilin University

News Interview/Media Report

- VOC, CCTV 12/Aug/2021 The Voice of China, China Central Television; [see https://mp.weixin.qq.com/s/glvaDNdsAAXrdAn9imDgnQ (in Chinese)]
- VOC, CCTV 25/May/2022 The Voice of China, China Central Television; [see https://content-static.cctvnews.cctv.com/snow-book/index.html?toc_style_id=feeds_default&share_to=wechat&item_id=631265256291590857&track_id=ABAA3E71-3BC8-468E-BB30-E7749E30EBB7_675580162403 (in Chinese)]

VOC, CCTV 26/June/2022 - The Voice of China, China Central Television; [see https://content-static.cctvnews.cctv.com/snow-book/index.html?toc_style_id=feeds_default&share_to=wechat&item_id=7098209212896444086&track_id=9CEB9984-7D6A-4A10-8AF3-73D7EADCA068_677671690278 (in Chinese)]

IEEE 6/July/2024 - IEEE Spectrum [see https://spectrum.ieee.org/Spectrum chatgpt-for-coding]

Professional Qualifications & Membership

2023—Present **RISCS Affiliate Fellowship**, The Research Institute for Sociotechnical Cyber Security (RISCS), (funded by the National Cyber Security Centre (NCSC))

2023-Present Senior Member, IEEE

2022-Present Member, ACM

2022-Present Member, European Alliance for Innovation (EAI)

2020-Present Member, China Computer Federation (CCF)

2020–Present **Member**, EuroSys 2017–Present **Member**, ISACA

2012–Present **Senior Software Engineer**, under "China Qualification Certificate of Computer Science Technology Proficiency"

Teaching

Instructor

Uni. of COMPSCI5093/5104 Secured Software Engineering, University of Glasgow;

Glasgow Spring'24, Spring'25

Uni. of COMPSCI4015 Professional Software Development, University of Glasgow;

Glasgow Fall'23, Spring'24, Fall'24, Spring'25

ShanghaiTech CS132, Software Engineering, ShanghaiTech University.

 Uni.
 Year (Sem)
 Enrollment
 Teaching Evaluation

 2021 (Spring)
 129
 4.5/5.0

 2021 (Fall)
 29
 4.7/5.0

ShanghaiTech CS224, Program Analysis, ShanghaiTech University.

Uni. Year (Sem) Enrollment Teaching Evaluation
2022 (Spring) 26 4.9/5.0

Teaching Assistant

PolyU.HK COMP3235, Software Project Management, Department of Computing; (Course for both Undergraduate);

PolyU.HK COMP3233, Software Testing and Quality Assurance, Department of Computing;(Course for both Undergraduate);

PolyU.HK COMP4911, Capstone Project, Department of Computing; (Course for both Undergraduate);

PolyU.HK COMP3211, Software Engineering, Department of Computing; (Course for both Undergraduate); PolyU.HK COMP309, System Programming, Department of Computing; (Course for both Undergraduate); PolyU.HK COMP322, Enterprise Information Systems Project Implementation, Department of Computing (Course for both Undergraduate); Supervision Summary I have supervised 9 research-oriented students, 14 graduate apprenticeship students, and 11 project/thesis-oriented students. Ph.D. Students and MPhil Students (By Research) (7 Students) 2024-2028 Yuxi Chen (University of Glasgow)-Main Supervisor 2024-2028 Susmita Das (University of Glasgow)-Second Supervisor 2024-2026 Bernie Chen (University of Glasgow)-Second Supervisor (with UofG Singapore) 2023 Jinan Jiang (with H.K Polytechnic University, Co-supervised with Prof. Xiapu Luo) TSE24 2022-2025 Zhijie Liu (with Shanghai Tech Uni.) Publication: ASE23,ISSTA25,TOSEM25,TSE24 2022-2025 Haitao Hu (with Shanghai Tech Uni.) 2021-2024 Zhichao Zhou (with Shanghai Tech Uni.) Publication: ASE22,OOPSLA25,TSE24a,TSE24b Visiting PhD Students 2025.04-06 David Romero Organvídez, Ph.D student from University of Seville (Universidad de Sevilla), Spain Research Intern (2 Students) 2020-2022 Hongchen Cao, Undergraduate from Shanghai Tech Uni. Publication: [J12][C22] 2022-2023 Xingchen Jin, Undergraduate from ShanghaiTech Uni. Visiting Student at University of California, Berkeley (UCB) Graduate Apprenticeships Workplace Assessment Year 3 (7 Students in total) 2024-2025 3 Year-3 Students, University of Glasgow 2023-2024 4 Year-3 Students, University of Glasgow Graduate Apprenticeships Workplace Assessment Year 4 (7 Students in total) 2024-2025 3 Year-4 Students, University of Glasgow 2023-2024 4 Year-4 Students, University of Glasgow Undergraduates/Msc/Projects/Thesis (11 Students in total) 2023-2024 2 Year-4 Students, 4 Msc Students, University of Glasgow 2022 1 Final Year Student, Shanghai Tech University 2021 3 Final Year Students, Shanghai Tech University

Selected University/Teaching/ECDP Trainings

- 2023-2025 Postgraduate Certificate in Academic Practice (PgCAP)
 - 2023 Equality and Diversity Essentials, University of Glasgow; 07/2023
 - 2023 Implementing Reasonable Adjustments, University of Glasgow; 07/2023
 - 2023 Information Security, University of Glasgow; 07/2023
 - 2023 Introduction to the General Data Protection Regulation, University of Glasgow; 07/2023

University & Department Services

- 2023 University Open Day, School of Computing Science, University of Glasgow; 30/08/2023
- 2023 Application Evaluation for Review, School of Computing Science, University of Glasgow; 10/08/2023
- 2021 Undergraduate Admission Coordinator, ShanghaiTech University, Hangzhou (Zhejiang); 28/6/2021-1/7/2021
- 2021 Graduate Recruiting at Jilin University, Changchun, 11/6/2021 (Online)
- 2021 Undergraduate Admission Coordinator, ShanghaiTech University, Tianjin City; 24/4/2021, 25/4/2021
- 2021 PI Interview Committee, System and Security Center, 1C-201, SIST, ShanghaiTech University, 4/3/2021; 11/3/2021
- 2021 Graduate Admission Interview, School of Information Science and Technology, 1A-302, SIST, ShanghaiTech University, 19/3/2021
- 2020 Modular High Performance Computing Application Innovation Workshop, 26/11/2020-Room 110, Administration Center, ShanghaiTech University
- 2020 Graduate Admission Interview, School of Information Science and Technology, 1A-212, SIST, ShanghaiTech University, 23/10/2020;13/09/2020
- 2020 Undergraduate Seminar, "System Security, Are We There Yet?", School of Information Science and Technology, ShanghaiTech University, 6/11/2020
- 2020 PI Interview Committee, System and Security Center, 1C-201, SIST, ShanghaiTech University, 19/11/2020

Conference Talks & Invited Talks

UCL CREST **Yutian Tang**, Invited Speaker at UCL CREST workshop, 2025, Workshop; Workshop

Fudan "Demystifying Application Performance Management Libraries for Android", **Yutian** University **Tang**, Fudan University, 8/4/2021, Seminar;

ShanghaiTech "System Security, Are We There Yet?", **Yutian Tang**, School of Information Science University and Technology, ShanghaiTech University, 6/11/2020, Undergraduate Seminar;

Invited The 12th International Conference on Advanced Infocomm Technology(2020); Speaker

ShanghaiTech "Android, Don't Lie to Me", **Yutian Tang**, ShanghaiTech University, China; University

Queen's "Android, Don't Lie to Me", **Yutian Tang**, Queen's University Belfast, United University Kingdom;
Belfast

University of "Android, Don't Lie to Me", **Yutian Tang**, University of East London, United East London Kingdom

University of "Android, Don't Lie to Me", **Yutian Tang**, University of Dundee, United Kingdom; Dundee

University of "Android, Don't Lie to Me", **Yutian Tang**, University of Central Lancashire, United Central Kingdom;
Lancashire

University of "Android, Don't Lie to Me", **Yutian Tang**, University of Canterbury, New Zealand; Canterbury

ESEC/FSE'20 "All Your App Links are Belong to Us: Understanding the Threats of Instant Apps based Attacks", **Yutian Tang**, in *The ACM Joint European Software Engineering Conference and Symposium on the Fundations of Software Engineering*;

Tongji "All Your App Links are Belong to Us: Understanding the Threats of Instant Apps University based Attacks", **Yutian Tang**, School of Software, Tongji University;

ASE'19 "Demystifying Application Performance Management Libraries for Android,", **Yutian Tang** in *34th IEEE/ACM International Conference on Automated Software Engineering*;

SANER'17 "StiCProb: A Novel Feature Mining Approach Using Conditional Probability", **Yutian Tang**,in *Proceedings of 24th IEEE International Conference on Software Analysis, Evolution, and Reengineering*;

ICPC'17 "Constructing Feature Model by Identifying Variability-aware Modules", **Yutian Tang**, in *IEEE/ACM International Conference on Program Comprehension*;

SOFTENG'15 "Feature Mining for Product Line Construction", **Yutian Tang**, in *The First International Conference on Advances and Trends in Software Engineering*;

ICEIS'15 "Top-down Feature Mining Framework for Software Product Line," **Yutian Tang**,in Proceedings of the International Conference on Enterprise Information System;

Languages

Chinese Native

English Proficient (CEFR C1)

Cantonese Basic

References

Available upon requests.