

唐宇田

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助理教授、研究员、博导

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总体介绍

唐宇田博士于 2013 年于吉林大学计算机科学与技术学院获学士学位, 师从黄岚副院长。之后赴香港理工大学深造学习, 于 2018 年获香港理工大学计算学系博士学位, 师从罗夏朴副教授、梁金能副教授。2018-2020 年在香港理工大学担任博士后研究员。之后加入上海科技大学担任助理教授、博士生导师、研究员。唐宇田博士在软件工程、系统安全领域发表 20 余篇 (CCF-A 类论文 5 篇, B 类 12 篇)。此外, 他还担任众多国际知名期刊审稿专家、会议、基金评审专家。

研究兴趣与专长

程序分析, 安卓系统, 系统安全, 大规模软件挖掘, 经验软件工程, 模糊测试

教育背景

2013.8- 哲学博士学位, 香港理工大学电子计算学系, 中国香港

2018.9

指导教师 ○ 罗夏朴副教授, Hareton Leung 副教授

2009.9- 学士学位, 吉林大学, 计算机科学与技术学院, 吉林, 中国

2013.6

指导教师 ○ 黄岚教授, 副院长

工作经历

2020.10- 至今 助理教授、研究员、博士生导师, 上海科技大学, 信息科学与技术学院, 中国上海

2018.11- 博士后研究员, 香港理工大学, 中国香港

2020.05

2017.08- 兼职研究助理, 香港理工大学, 中国香港
2018.05

所报告的安全漏洞及补丁

CVE No. CVE-2020-27057

AndroidID No. 128919672

研究经费

- 2020.10- “Early career research fund (No.2020F0203-000-14)”, 上海科技大学, 经费:
2026.10 3,000,000 人民币
- 2021.10- “基于大数据的移动应用恶意成分检测 (No.21PJ1410700)”, 上海市浦江人才计
2023.09 划, 上海市科委, 经费: 300,000 人民币
- 2018.01- “Improving Mobile Users’ Privacy Decisions via Exposing Unexpected Sensitive
2020.12 Operations in Hardened Apps”, Research Grants Council GRF, Hong Kong, 经
费: 416,667 港币; 参见 https://cerg1.ugc.edu.hk/cergprod/scrrm00542.jsp?proj_id=15222317
- 2018.03- “Research and Development of An Advanced IPS System for Aftermarket Telem-
2020.05 atics;”, Innovation and Technology Fund (ITF), Hong Kong, 经费: 2,386,066 港
币 (包括来自 ITF 的 1,899,340 港币和公司资助的 486,726 港币);

论文出版

- 总结 ESEC/FSE (1); ASE (2); IEEE TSE (2); IEEE TReli (1); SANER (3); ICPC
(2); ISSRE (2); JSS (2); IST (2); JCST (1)
JCR-Q1 (8), CCF-A (5), CCF-B(12), Core-A(8)
- TSE’21b **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, **CCF-A 软件领域顶级期刊**;
- TReli’21 Kunsong Zhao, Zhou Xu, Tao Zhang, **Yutian Tang**, “Simplified Deep Forest
Model based Just-In-Time Defect Prediction for Android Mobile Apps”, *IEEE
Transactions on Reliability* JCR-Q1;
- SAC’21 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 Com-
puting*

- TSE'21a **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*, **CCF-A 软件领域顶级期刊, JCR-Q1**; IF=6.112;
- IST'20 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)*, **CCF-B, JCR-Q1**;
- ASE'20 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)* **Core A, CCF-A, 软件领域顶级会议**;
- QRS'20 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)* **CCF-C**;
- ESEC/FSE'20 **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)*, **Core A, CCF-A, 软件领域顶级会议, the vulnerability reported is confirmed by Google**;
- arXiv'20 **Yutian Tang**, Hao Zhou, Zhou Xu, Xiapu Luo, Yan Cai, and Tao Zhang, “Feature Location Benchmark for Decomposing and Reusing Android Apps”, *In arXiv, 2020 2005.04008*;
- SANER'20 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)*, **CCF-B, the vulnerability reported is confirmed by Google**;
- ASE'19 **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)*, **CCF-A, Core-A, 软件领域顶级会议**;

- JSS'19 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), **JCR-Q1**;
- QRS'19 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), CCF-C;
- ISSRE'19 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), CCF-B, **Core-A**;
- JCST'19 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), CCF-B;
- JSS'19 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), CCF-B, **JCR-Q1**;
- SANER'19 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), CCF-B;
- IST'18 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), CCF-B, **JCR-Q1**;
- ISSRE'18 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), CCF-B, **Core-A**, **Best Industrial Paper Award**;

- ICPC'18 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), CCF-B, Core-B;
- ICPC'17 **Yutian Tang**, Hareton Leung, "Constructing Feature Model by Identifying Variability-aware Modules", 25th IEEE/ACM International Conference on Program Comprehension (ICPC), CCF-B;
- SANER'17 **Yutian Tang**, Hareton Leung, "StiCProb: A Novel Feature Mining Approach using Conditional Probability", 24th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER), CCF-B;
- SOFTENG'15 **Yutian Tang**, Hareton Leung, "Feature Mining for Product Line Construction", The First International Conference on Advances and Trends in Software Engineering (SOFTENG);
- ICEIS'15 **Yutian Tang**, Hareton Leung, "A Top-down Feature Mining Framework for Software Product Line", 17th International Conference on Enterprise Information Systems (ICEIS);

新闻采访及媒体报道

- 中国之声 21/8/2021 – 中央广电总台中国之声采访; [详见 <https://mp.weixin.qq.com/s/glvaDNdsAAXrdAn9imDgnQ>]

教学经历

- 课程讲师 CS132 软件工程, 上海科技大学; 2021 (春, 秋) (本科课程), (中英双语教学);
- 课程讲师 CS224 程序分析, 上海科技大学 2022 (春) (研究生课程), (中英双语教学);

获奖及奖学金

- 2020 上海市浦江人才计划
- 2018 最佳工业论文奖软件可靠性工程国际会议, 论文题目: "A Smart Context-aware Program Assistant based on Dynamic Programming Event Modeling"
- 2013-2017 香港理工大学博士奖学金
- 2012 吉林大学, 本科生研究奖一等奖
- 2012 吉林大学二等奖学金
- 2011 吉林大学三等奖学金

学生指导

指导博士研究生 2 人，硕士研究生 3 人，本科生 6 人。

学术服务

基金审稿专家

基金审稿专家 上海中小企业创新项目通讯评审

国际会议程序委员会评审委员

会议评审专家 Artefact Evaluation Program Committee, International Conference on Software Engineering (ICSE) CCF-A 类, 2022;

会议评审专家 Technical Program Committee, The International Conference on Program Comprehension (ICPC) CCF-B 类, 2022;

会议评审专家 Artefact Evaluation Program Committee, The ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) CCF-A 类, 2021;

会议评审专家 CCF Chinasoft Conference (ChinaSoft) – Software & Data Intelligence Track, 2021;

期刊审稿人

审稿专家 IEEE Transactions on Dependable and Secure Computing;

审稿专家 Journal of Computer Security;

审稿专家 IEEE Transactions on Reliability;

审稿专家 Frontier of Computer Science;

审稿专家 SN Applied Sciences;

审稿专家 Scientific Programming;

审稿专家 SCIENCE CHINA Information Sciences;

审稿专家 IEEE Access;

审稿专家 Security and Communication Networks;

审稿专家 IEEE Transactions on Services Computing, IEEE Transactions on Biometrics, Behavior and Identity Science

会议特邀嘉宾

会议特邀嘉宾 The 12th International Conference on Advanced Infocomm Technology;

专业、技术任职

- 2012-至今 中级软件工程师, “中国软件工程师资格考试”
2017-至今 国际安全学会 ISACA 会员
2017-至今 国际电气工程师学会会员
2017-至今 香港软件工程学会会员
2020-至今 欧洲系统与软件工程师学会会员
2020-至今 中国学会会员

会议报告及受邀报告

- 复旦大学 “Demystifying Application Performance Management Libraries for Android”,
8/4/2021, 学术报告
- 上海科技大学 “System Security, Are We There Yet?”, 6/11/2020, 学术报告;
主旨演讲 The 12th International Conference on Advanced Infocomm Technology(2020)
- 上海科技大学 “Android, Don’t Lie to Me”, 学术报告
- 英国女王大学贝尔法斯特 “Android, Don’t Lie to Me”, 学术报告
- 英国东伦敦大学 “Android, Don’t Lie to Me”, 学术报告
- 英国邓迪大学 “Android, Don’t Lie to Me”, 学术报告
- 英国中央兰开夏大学 “Android, Don’t Lie to Me”, 学术报告
- 新西兰肯特伯雷大学 “Android, Don’t Lie to Me”, 学术报告
- ESEC/FSE’20 “All Your App Links are Belong to Us: Understanding the Threats of Instant Apps based Attacks”, in *The ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering* 会议报告
- 同济大学 “All Your App Links are Belong to Us: Understanding the Threats of Instant Apps based Attacks”, 青年论坛学术报告

- ASE'19 "Demystifying Application Performance Management Libraries for Android,"
in *34th IEEE/ACM International Conference on Automated Software Engineering*, 会议报告
- SANER'17 "StiCProb: A Novel Feature Mining Approach Using Conditional Probability",
in *Proceedings of 24th IEEE International Conference on Software Analysis, Evolution, and Reengineering*, 会议报告
- ICPC'17 "Constructing Feature Model by Identifying Variability-aware Modules",
IEEE/ACM International Conference on Program Comprehension, 会议报告
- SOFTENG'15 "Feature Mining for Product Line Construction", *The First International Conference on Advances and Trends in Software Engineering*, 会议报告
- ICEIS'15 "Top-down Feature Mining Framework for Software Product Line," *Proceedings of the International Conference on Enterprise Information System*, 会议报告