# 唐宇田

## 助理教授、研究员、博导

信息科学与技术学院
上海科技大学
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## ───── 研究兴趣与方向

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

**2013.8-2018.9** **哲学博士学位**, 香港理工大学电子计算学系，中国香港

指导教授 ○ 罗夏朴副教授, 梁金能副教授

**2009.9-2013.6** **学士学位**, 吉林大学，计算机科学与技术学院，吉林，中国

指导教授 ○ 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

**2020.06-2020.08** **博士后研究员**, 香港城市大学，中国香港

**2018.11-2020.05** **博士后研究员**, 香港理工大学，中国香港

**2017.08-2018.05** **兼职研究助理**, 香港理工大学，中国香港

## ───── 研究项目

| | |
|---|---|
| 2020.10-<br>2026.10 | **主持**："Early career research fund (No.2020F0203-000-14)"，**上海科技大学**, **经****费**: 3,000,000 **人民币** |
| 2021.10-<br>2023.09 | **主持**："基于大数据的移动应用恶意成分检测 (No.21PJ1410700)"，**上海市浦江****人才计划**, **上海市科委**, **经费**: 300,000 **人民币** |
| 2018.01-<br>2020.12 | **参与**："Improving Mobile Users'Privacy Decisions via Exposing Unexpected Sensitive 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-<br>2020.05 | **参与**："Research and Development of An Advanced IPS System for Aftermarket Telematics;",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

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|---|---|
| **总结** | ESEC/FSE (1); WWW (1); ASE (1); IEEE TSE (2); SANER (1); ICPC (1); CCF-A (6), CCF-B(12) |

### 第一作者或通信作者 (9 篇)

| | |
|---|---|
| TSE'21b | [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,* CCF-A **类期刊**，**中科院二****区**，JCR **一区**，SCI, 2020 **影响因子** IF=6.226; |
| TSE'21a | [8] **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 **类期刊**，**中科院二区**，JCR **一区**，SCI, 2020 **影响****因子** IF=6.226; |
| WMC'21 | [7] 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,*EI, CCF-C; |
| ESEC/FSE'20 | [6] **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 **类会议**, EI, **所报告的漏洞被谷歌认可**; |

ASE'19 [5] **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 类会议, EI;

ICPC'17 [4] **Yutian Tang**, Hareton Leung,"Constructing Feature Model by Identifying Variability-aware Modules", 25th IEEE/ACM International Conference on Program Comprehension (ICPC), CCF-B 类会议, EI;

SANER'17 [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), CCF-B 类会议, EI;

SOFTENG'15 [2] **Yutian Tang**, Hareton Leung,"Feature Mining for Product Line Construction", The First International Conference on Advances and Trends in Software Engineering (SOFTENG), EI;

ICEIS'15 [1] **Yutian Tang**, Hareton Leung,"A Top-down Feature Mining Framework for Software Product Line", 17th International Conference on Enterprise Information Systems (ICEIS), EI;

**非第一作者** (18 篇)

WWW'22 [18] 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)*,CCF-A;

ICPDS'21 [17] 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*,CCF-C, EI;

AppliedSC'21b [16] 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,* JCR 一区, SCI;

TReli'21 [15] 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*, 中科院三区, JCR 一区, SCI;

SAC'21 [14] 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*, EI

IST'20 [13] 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 类,JCR-二区, SCI*;

ASE'20 [12] 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 类会议, EI;

QRS'20 [11] 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 类会议, EI;

SANER'20 [10] 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 类会议, EI, **所报告的漏洞被谷歌认可**;

JSS'19 [9] 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), CCF-B 类期刊, JCR-一区;

QRS'19 [8] 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 类会议, EI;

ISSRE'19 [7] 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 类会议, EI, Core-A;

JCST'19 [6] 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 **类期刊**, SCI;

JSS'19 [5] 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 Systems and Software (JSS), CCF-B **类期刊**, JCR **一区**, SCI;

SANER'19 [4] 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 **类会议**, EI;

IST'18 [3] 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 **类期刊**, JCR-**一区**, SCI;

ISSRE'18 [2] 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 **类会议**, Core-A, **最佳工业论文奖**, EI;

ICPC'18 [1] 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 **类会议**, Core-B, EI;

## 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);
64 学时，教学评价：4.6/5

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);
64 学时

## 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`]

## 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

研究生指导　指导博士研究生 2 人，硕士研究生 3 人

本科指导　本科生毕业设计 2020 年 1 人，2021 年 4 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

### 国际期刊编委委员会

编委　Frontiers in Computer Science (ESCI indexed)

编委　Scientific Programming (SCI indexed)

### 国际会议程序委员会评审委员

评审专家　**ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI) CCF-A 类**,2022

评审专家　**Future Technologies Conference (FTC) 2022**

评审专家　**IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft Industry Track)**, 2022;

评审专家　**IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft)**, 2022;

评审专家　**Technical Program Committee, TInternational Conference on Software Engineering & Knowledge Engineering (SEKE) CCF-C 类**, 2022;

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

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

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;

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

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

2020-至今  中国学会系统软件专家委员会执行委员

2020-至今 中国学会软件工程专家委员会委员

2021-至今 上海计算机学会软件工程专家委员委员

## ▬▬▬▬ 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 Fundations 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**