

Liu Wang

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Huazhong University of Science and Technology, School of CyberSecurity - Wuhan, China - Postdoc

RESEARCH INTERESTS

My research interests lie at the intersection of software engineering, security, and responsible AI. I strive to build secure, reliable, and trustworthy intelligent systems. My work encompasses usable privacy, fraud detection and anti-fraud intelligence, AI governance and safety, and the design and evaluation of LLM-driven autonomous agents. I am also deeply interested in human-AI collaboration, including the development of principled collaborative decision-making frameworks that synergize human judgment with AI capabilities.

EDUCATION

Beijing University of Posts and Telecommunications (BUPT)	Beijing, China
<i>Ph.D. in School of Computer Science (National Pilot Software Engineering School)</i>	<i>2022 - 2025</i>
• Supervisor: Prof. Yi Wang	
<i>M.E. in School of Computer Science (National Pilot Software Engineering School)</i>	<i>2019 - 2022</i>
• Supervisor: Prof. Haoyu Wang	
Shandong University (SDU)	Jinan, Shandong, China
<i>B.E. in Digital Media Technology, School of Software Engineering</i>	<i>2015 - 2019</i>

PUBLICATIONS (*co-first authorship)

- 1 **A Big Step Forward? A User-Centric Examination of iOS App Privacy Report and Enhancements**
Liu Wang, Dong Wang, Shidong Pan, Zheng Jiang, Haoyu Wang, Yi Wang.
Proceedings of the 46th IEEE Symposium on Security and Privacy (S&P), 2025.
- 2 **SCOPE: Evaluating and Enhancing Permission Explanation Transparency in Mobile Apps**
Liu Wang, Tianshu Zhou, Haoyu Wang, Xiyuan Liu, Yi Wang.
The 40th IEEE/ACM International Conference on Automated Software Engineering (ASE), Industry track, 2025.
- 3 **On the (In)Security of Non-resettable Device Identifiers in Custom Android Systems**
Zikan Dong*, Liu Wang*, Guoai Xu, Haoyu Wang.
The 40th IEEE/ACM International Conference on Automated Software Engineering (ASE), 2025.
- 4 **Beyond App Markets: Demystifying Underground Mobile App Distribution Via Telegram**
Yanhui Guo, Dong Wang, Liu Wang, Yongsheng Fang, Chao Wang, Minghui Yang, Tianming Liu, Haoyu Wang.
ACM SIGMETRICS/Performance (SIGMETRICS), 2025.
- 5 **Android Malware Family Labeling: Perspectives from the Industry**
Liu Wang, Haoyu Wang, Tao Zhang, Haitao Xu, Guozhu Meng, Peiming Gao, Chen Wei, Yi Wang.
The 39th IEEE/ACM International Conference on Automated Software Engineering (ASE), Industry Track, 2024.
- 6 **Global Prosperity or Local Monopoly? Understanding the Geography of App Popularity**
Liu Wang, Conghui Zheng, Haoyu Wang, Xiapu Luo, Gareth Tyson, Yi Wang, Shangguang Wang
21st International Conference on Mining Software Repositories (MSR), 2024.
- 7 **MalCertain: Enhancing Deep Neural Network Based Android Malware Detection by Tackling Prediction Uncertainty**
Haodong Li, Guosheng Xu, Liu Wang, Xusheng Xiao, Xiapu Luo, Guoai Xu, Haoyu Wang
Proceedings of 44th International Conference on Software Engineering (ICSE), 2024.
- 8 **Re-measuring the Label Dynamics of Online Anti-Malware Engines from Millions of Samples**
Jingjing Wang*, Liu Wang*, Feng Dong, Haoyu Wang
ACM Internet Measurement Conference (IMC), 2023.
- 9 **WeMinT: Tainting Sensitive Data Leaks in WeChat Mini-Programs**
Shi Meng*, Liu Wang*, Shenao Wang, Kailong Wang, Xusheng Xiao, Guangdong Bai, Haoyu Wang
The 38th IEEE/ACM International Conference on Automated Software Engineering (ASE), 2023.
- 10 **Ransomware as a Service: Demystifying Android Ransomware Generators**
Can Tu, Liu Wang, Yang Xu, Yiping Zhao, Haitao Xu, Haoyu Wang
19th EAI International Conference on Security and Privacy in Communication Networks (SecureComm), 2023.

- 11 **DISTDET: A Cost-Effective Distributed Cyber Threat Detection System**
Feng Dong, Liu Wang, Nie Xu, Fei Shao, Haoyu Wang, Ding Li, Xiapu Luo, Xusheng Xiao
The 32th USENIX Security Symposium (USENIX Security), 2023.
- 12 **A Deep Dive into the Featured iOS Apps**
Liu Wang, Haoyu Wang, Huiyi Wang, Li Li, Yi Wang
The 14th Asia-Pacific Symposium on Internetworkware (Internetworkware), 2023.
- 13 **MalWhiteout: Reducing Label Errors in Android Malware Detection**
Liu Wang, Haoyu Wang, Xiapu Luo, Yulei Sui
The 37th IEEE/ACM International Conference on Automated Software Engineering (ASE), 2022.
- 14 **What Did You Pack in My App? A Systematic Analysis of Commercial Android Packers**
Zikan Dong*, Hongxuan Liu*, Liu Wang, Xiapu Luo, Yao Guo, Guoai Xu, Xusheng Xiao, Haoyu Wang
ESEC/FSE, Industry Track, 2022.
- 15 **Demystifying “Removed Reviews” in iOS App Store**
Liu Wang, Haoyu Wang, Xiapu Luo, Tao Zhang, Shangguang Wang, Xuanzhe Liu
ESEC/FSE, Industry Track, 2022.
- 16 **MalRadar: Demystifying Android Malware in the New Era**
Liu Wang, Haoyu Wang, Ren He, Ran Tao, Guozhu Meng, Xiapu Luo, Xuanzhe Liu
ACM SIGMETRICS/Performance (SIGMETRICS), 2022.
- 17 **A Tale of Two Countries: A Longitudinal Cross-Country Study of Mobile Users’ Reactions to the COVID-19 Pandemic Through the Lens of App Popularity**
Liu Wang, Haoyu Wang, Yi Wang, Gareth Tyson, Fei Lyu
The 9th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MobileSoft), 2022.
- 18 **A Longitudinal Study of Removed Apps in iOS App Store**
Fuqi Lin*, Haoyu Wang*, Liu Wang, Xuanzhe Liu.
Proceedings of the 30th The Web Conference (WWW), 2021.
- 19 **Beyond the Virus: A First Look at Coronavirus-themed Android Malware**
Liu Wang, Ren He, Haoyu Wang, Pengcheng Xia, Yuanchun Li, Lei Wu, Yajin Zhou, Xiapu Luo, Yulei Sui, Yao Guo, Guoai Xu
Empirical Software Engineering (EMSE)
- 20 **A Large-Scale Empirical Study of COVID-19 Themed GitHub Repositories**
Liu Wang, Ruiqing Li, Jiaxin Zhu, Guangdong Bai, Haoyu Wang
IEEE Computer Society Signature Conference on Computers, Software and Applications (COMPSAC), 2021.

HONORS AND AWARDS

- ACM SIGSOFT Frank Anger Memorial Award, ACM SIGSOFT 2025
- National Scholarship for Outstanding PhD Students, Chinese Ministry of Education 2023
- National Scholarship for Outstanding Master’s Students, Chinese Ministry of Education 2021
- Outstanding Graduate Student, BUPT 2021, 2022, 2023, 2024

SERVICES

- TPC Member A-Mobile 2023-2026, ChinaSoft 2023
AEC Member CCS 2024
PC/Reviewer CHI 2026, WWW 2024-2025, SecureComm 2023, TOPS, TOSEM, EMSE
Sub-reviewer PoPETs 2024-2026, FSE 2024-2026, IMC 2024-2026, ASE 2024, ISSTA 2024, Internetworkware 2024

TEACHING EXPERIENCE

- Teaching Assistant, Software Architecture, BUPT Spring 2024
- Teaching Assistant, Principles of Computer Organization, BUPT Spring 2020, Spring 2021

VISITINGS AND INTERNS

- Visiting PhD student at the *Security Pride* research group in Huazhong University of Science and Technology (HUST), working with *Prof. Haoyu Wang*. Feb 2023 - Aug 2023
- Internship at *Sangfor Technologies*. Oct 2021 - Mar 2022