

# Liuhuo Wan

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in Liuhuo Wan

🌐 <https://cosunshine.github.io/>



## Education

**Ph.D., The University of Queensland (UQ), Australia**

Apr 2022 – Oct 2025 (Expected)

Major: **Cybersecurity**, School of Electrical Engineering and Computer Science

Supervisor: Associate Professor **Guangdong Bai**

**M.Sc., National University of Singapore (NUS), Singapore**

Sep 2018 – Jun 2019

Major: Computer Science, School of Computing

GPA: 4.0/5.0

**B.Sc., Dalian University of Technology (DUT), China**

Sep 2014 – Jun 2018

Major: Software Engineering, School of Software

GPA: 88/100

## Research Interests



- **Validation and Penetration Testing Techniques:** Utilize both LLM techniques and static/dynamic methods for software penetration testing and validation.
- **Software Security:** Analysis and testing of web, mobile, and IoT security.
- **Malware Analysis:** Develop multiple tools for effective malware detection and behavioral analysis.

## Research Publications



1. [LLMApp'25] C. Yan, **L. Wan**, B. Guan, F. Yu, G. Bai, "Tracking GPTs Third Party Service: Automation, Analysis, and Insights", In Proceedings of 33rd ACM International Conference on the Foundations of Software Engineering (FSE Companion), 2025. **Accepted to appear.**
2. [MobiCom'25] Z. Li, C. Yan, **L. Wan**, H. Zhuang, P. Hu, G. Bai, Y. Shen, "WinSpy: Cross-window Side-channel Attacks on Android's Multi-window Mode", In Proceedings of the 31st Annual International Conference On Mobile Computing And Networking, 2025. **Accepted to appear.**
3. [WWW'25] C. Yan, B. Guan, Y. Li, M. H. Meng, **L. Wan**, G. Bai, "Understanding and Detecting File Knowledge Leakage in GPT App Ecosystem", In Proceedings of the ACM on Web Conference 2025.
4. [ASE'24] C. Yan, R. Ren, M. H. Meng, **L. Wan**, T. Y. Ooi, and G. Bai, "Exploring ChatGPT App Ecosystem: Distribution, Deployment and Security", In Proceedings of the 39th IEEE/ACM International Conference on Automated Software Engineering, 2024. **ACM SIGSOFT Distinguished Paper Award.**
5. [WWW'24]: **L. Wan**, K. Wang, K. Mahadewa, H. Wang, and G. Bai, "Don't Bite Off More than You Can Chew: Investigating Excessive Permission Requests in Trigger-Action Integrations", In Proceedings of the ACM on Web Conference 2024.
6. [WWW'24]: **L. Wan**, K. Wang, H. Wang, and G. Bai, "Is It Safe to Share Your Files? An Empirical Security Analysis of Google Workspace", In Proceedings of the ACM on Web Conference 2024.

7. [ICECCS'24] **L. Wan**, C. Yan, M. H. Meng, K. Wang, and H. Wang, "Analyzing Excessive Permission Requests in Google Workspace Add-Ons", in International Conference on Engineering of Complex Computer Systems, 2024.
8. [ADMA'22] **L. Wan**, Y. Zhang, R. Li, R. Ko, L. Hoffman, and G. Bai, "SATB: A Testbed of IoT-Based Smart Agriculture Network for Dataset Generation", in International Conference on Advanced Data Mining and Applications, Springer, 2022. **Best Paper Runner Up Award.**



## Teaching Experience

- 2022  **Casual Academic**, CSSE7610 - Concurrency: Theory and Practice
- 2023  **Casual Academic**, COMP3320 - Vulnerability Assessment and Penetration Testing  
Responsibilities included designing assignments and problem sets, delivering tutorials and lab sessions, and evaluating student submissions and final exams.









## Funded Projects

- UQ Cyber  **Cyber Seed Project: Security Investigation in Queensland Smart Agriculture. My role:** I contributed to the research and delivered the audit presentation.
- DP  **Australian Research Council Discovery Projects: Security and Privacy Compliance in the Emerging Web App Ecosystem. My role:** my PhD research is embedded within my supervisor's ARC Discovery Project (DP), where I am responsible for project design and academic deliverables.

## Recognized Security Contributions

- Google  Our discovery of critical security vulnerabilities in Google Workspace was acknowledged by Google, and we were awarded a bug bounty.
- IFTTT  Our findings on suspicious permissions were acknowledged by IFTTT, one of the most widely used IoT integration platforms.

## Honors and Awards

- 2025  **Richard Jago Memorial Prize**, School of Electrical Engineering and Computer Science, Australia, \$6883
-  **Scholarship**, UQU Postgraduate Bursary Program, Australia, \$500
- 2024  **Travel Grant**, UQ ITEE, Australia, \$2000
-  **Scholarship**, UQU Postgraduate Bursary Program, Australia, \$500
- 2023  **Bug Bounty Program**, Google **Bug Hunter Reward**, America, \$800
- 2019  **Scholarship**, Tuition Fee Scholarship, Singapore
- 2018  **Merit Award**, Outstanding Graduate, China
- 2016  **Scholarship**, National Scholarship, China

## Talks

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1. **UQ Cybersecurity Seed Funding Talk**, Cyber Security in Smart Agriculture, July, 2024
2. **Research Talk at NUS**, Security and Privacy of Web-based Collaborative Platforms, May, 2024
3. **WWW Conference**, Two Oral Presentations, May, 2024
4. **ADMA Conference**, A Testbed of IoT-based Smart Agriculture Networks, November, 2022

## Mentoring Experience

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### Master Students

Guokai Tang, University of Queensland -> Now: Ph.D. Student at Huazhong University of Science and Technology.

Zicong Liu, University of Queensland, Topic: A Study of Privacy in Team Collaboration Platforms.

Zeng Li, Shandong University, Topic: Side-channel Attacks on Android's Multi-window Mode.

Jieping Liu, University of Queensland, Topic: Investigating Security Vulnerabilities in the GitHub Ecosystem.

## Professional Services

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### Sub-Reviewer:

- The International Conference on Software Engineering (ICSE), 2025, 2026
- The Network and Distributed System Security Symposium (NDSS), 2024
- The ACM International Conference on the Foundations of Software Engineering (FSE), 2024
- The ACM SIGSAC Conference on Computer and Communications Security (CCS), 2024, 2025
- The International Conference on Engineering of Complex Computer Systems (ICECCS), 2023
- IEEE/ACM International Conference on Automated Software Engineering (ASE), 2023

### External Reviewer:

- The ACM Conference on Data and Application Security and Privacy (CODASPY), 2024

### Reviewer:

- IEEE Transactions on Dependable and Secure Computing (TDSC)
- IEEE Transactions on Services Computing (TSC)

### Organization Volunteer:

- The International Conference on Formal Engineering Methods (ICFEM), 2023
- The International Conference Advanced Data Mining and Applications (ADMA), 2022

## Collaborators

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**Guangdong Bai**, Associate Professor at the University of Queensland

**Haoyu Wang**, Professor at Huazhong University of Science and Technology

**Kailong Wang**, Associate Professor at Huazhong University of Science and Technology

**Yiran Shen**, Professor at Shandong University

## Industry Experience

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2019 – 2022

■ **Software Developer at Shopee**

Designed algorithms for recommendation systems; proficient in deep learning and machine learning

2019 – 2019

■ **Research Intern at NUS Suzhou**

Developed machine learning frameworks widely adopted across the institute.