

# LU HONGYI

+86 156 2529 0103 ◇ [luhy2017@mail.sustech.edu.cn](mailto:luhy2017@mail.sustech.edu.cn) ◇ <https://hongyi.lu>

## Education

HKUST

Ph.D. Computer Science

2022 – Present

SUSTech

B.Sc. Mathematics

2017 – 2021

## Working Experience

COMPASS Lab. *Research Assistant*

↔ Prof. Zhang Fengwei

Nov. 2021 – 2022

*Southern University of Science and Technology*

- Conducted research in computer systems.

## Publications

- [1] **Hongyi Lu\***, Yunjie Deng\*, Sukarno Mertoguno, Shuai Wang, and Fengwei Zhang. MOLE: Breaking GPU TEE with GPU-Embedded MCU. In *the Proceedings of the 2025 ACM SIGSAC Conference on Computer and Communications Security (CCS,CCF-A)*, 2025.
- [2] Hongyi Lu, Shuai Wang, Yechang Wu, Wanning He, and Fengwei Zhang. MOAT: Towards Safe BPF Kernel Extension. In *33rd USENIX Security Symposium (USENIX Security, CCF-A)*, 2024.
- [3] **Hongyi Lu**, Zhibo Liu, Shuai Wang, and Fengwei Zhang. DTD: Comprehensive and Scalable Testing for Debuggers. In *the Proceedings of the ACM on Software Engineering (FSE,CCF-A)*, 2024.
- [4] Wanning He\*, **Hongyi Lu\***, Fengwei Zhang, and Shuai Wang. RingGuard: Guard io\_uring with eBPF. In *the Proceedings of the 1st Workshop on eBPF and Kernel Extensions (eBPF)*, pages 56–62, 2023.
- [5] Haonan Li, Weijie Huang, Mingde Ren, **Hongyi Lu**, Zhenyu Ning, Heming Cui, and Fengwei Zhang. A Novel Memory Management for RISC-V Enclaves. In *the Proceedings of the 10th International Workshop on Hardware and Architectural Support for Security and Privacy (HASP)*, 2022.
- [6] **Hongyi Lu** and Fengwei Zhang. Raven: a Novel Kernel Debugging Tool on RISC-V. In *the Proceedings of the 59th ACM/IEEE Design Automation Conference (DAC,CCF-A)*, pages 1039–1044, 2022.
- [7] **Hongyi Lu**, Yechang Wu, Shuqing Li, You Lin, Chaozu Zhang, and Fengwei Zhang. BADUSB-C: Revisiting BadUSB with Type-C. In *2021 IEEE Security and Privacy Workshops (WOOT)*, pages 327–338, 2021.

In total, I have published **four CCF-A papers** as first/co-first author (marked with \*), **two in Security Big4 conferences**.

## Academic Service

Reviewer TIFS

Ext. Reviewer USENIX Security 2023, S&P 2023, PoPET 2023, CCS 2023, CCS 2022

## Projects & Extracurriculars

LLVM [github.com/llvm](https://github.com/llvm)

*Submitted a patch to the LLVM project, fixing a bug of its debugger.*

2023

Patent ZL 2022 1 0436969.8

*Kernel Space Debug Method, Device and Storage Medium*

2022

Video2Ascii [github.com/jwnhy/video2ascii](https://github.com/jwnhy/video2ascii)

*Built a program that transforms your video into text animation.*

2022

Translation of Software Foundation [coq-zh.github.io/SF-zh](https://coq-zh.github.io/SF-zh)

*Helped translate the Software Foundation, a famous textbook about formal verification.*

2022

Summer Camp, National University of Singapore [sws.comp.nus.edu.sg](https://sws.comp.nus.edu.sg)

*Conducted a simulation project about highway traffic and mobile phone signal.*

2019