

Mingkai Li

Ph.D. Student
Columbia University

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EDUCATION

- Ph.D. Electrical Engineering, Columbia University, 2024–present
Research: Computer Systems, Systems Security, and AI Infrastructure
- M.S. Electrical Engineering, Columbia University, 2024–2026
M.S. earned en route to Ph.D.
- B.Eng. Computer Science, University of Science and Technology of China (USTC), 2019–23

EXPERIENCES

- 2023–24 National University of Singapore
Research Intern, School of Computing, 2023/01–2024/04

PUBLICATIONS

Conference Proceedings

- 2026 NanoTag: Systems Support for Efficient Byte-Granular Overflow Detection on ARM MTE.
Mingkai Li, Hang Ye, Joseph Devietti, Suman Jana, Tanvir Ahmed Khan.
The 47th IEEE Symposium on Security and Privacy (*Oakland*), 2026
- 2025 Caplification: Bridging Capability-Aware and Capability-Oblivious Software.
Jason Zhijiangcheng Yu, *Mingkai Li*, Aditya Badole, Trevor E. Carlson, Michael Swift, Prateek Saxena.
The 30th ACM Symposium on Access Control Models and Technologies (*SACMAT*), 2025
- 2023 TransMap: Pinpointing Mistakes in Neural Code Translation.
Bo Wang, Ruishi Li, *Mingkai Li*, Prateek Saxena.
The 31st ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (*ESEC/FSE*), 2023

Workshops

- 2026 Challenges and Design Considerations for Finding CUDA Bugs Through GPU-Native Fuzzing.
Mingkai Li, Joseph Devietti, Suman Jana, Tanvir Ahmed Khan.
The 2nd Workshop on Ethical Systems and Architecture Design (*HotEthics*), 2026 (co-located with ASPLOS '26)

TALKS

- May 2026 NanoTag: Systems Support for Efficient Byte-Granular Overflow Detection on ARM MTE
IEEE S&P 2026, Francisco, CA
- May 2026 NY Architecture & Systems Day, Princeton University, NJ
- Mar 2026 Challenges and Design Considerations for Finding CUDA Bugs Through GPU-Native Fuzzing
HotEthics 2026, Pittsburgh, PA

TEACHING

EECS6894: Data Center Processing, Teaching Assistant, Fall 2025

CSEE4119: Computer Networks, Teaching Assistant, Fall 2024

MISC

Programming Languages: C/C++, CUDA, ARM/RISC-V assembly

Language: Mandarin Chinese (Native), English (TOEFL: 109, S 25)