

YU LIANG

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Research Interests:

System and Software Security, Principles of Operating Systems, Principles of Compilers, DBMS

Employment

Ph.D. Full-time Research Assistant
Ph.D. Software Engineer Intern
Meta Platforms, Inc.

Aug 2025 (PRED)
May 2024 – Aug 2024

Education:

Ph.D. Candidate
Pennsylvania State University
Major: Informatics
Master
Pennsylvania State University
Major: Engineering Science and Mechanics

Aug 2019 - Present
Advisor: Dr. [Peng Liu](#)
Aug 2018 – Aug 2019
Advisor: Dr. Jian Xu

Publications:

1. Detecting Logical Bugs of DBMS with Coverage-based Guidance, **Yu Liang**, Song Liu, and Hong Hu, **USENIX Security 2022**
2. Who Goes First? Detecting Go Concurrency Bugs via Message Reordering, Ziheng Liu, Shihao Xia, **Yu Liang**, Linhai Song, and Hong Hu, **ASPLOS 2022**
3. Let the DOCTOR Decide Whom to Test: Adaptive Testing Strategies to Tackle the COVID-19 Pandemic, **Yu Liang**, Amulya Yadav, **AAMAS 2021**
4. Parser Knows Best: Testing DBMS with Coverage-Guided Grammar-Rule Traversal, **Yu Liang**, Hong Hu, arXiv
5. Optimal and Non-Discriminative Rehabilitation Program Design for Opioid Addiction Among Homeless Youth. Amulya Yadav, Roopali Singh, Nikolas Siapoutis, Anamika Barman-Adhikari, & **Yu Liang**, **IJCAI 20**
6. Tackling Sequential Attacks in Security Games, Thanh H. Nguyen, Amulya Yadav, Branislav Bosansky, **Yu Liang**, **GameSEC 19**

SKILLS:

- System Security:
 - Techniques: Fuzzing, Program Analysis, Database Management System Testing