YU **LIANG**

Ph.D. Candidate of Informatics Advised by Dr. [Peng Liu](http://s2.ist.psu.edu/pliu/)

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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** Aug 2025 (PRED)

**Ph.D. Software Engineer Intern** May 2024 – Aug 2024

Meta Platforms, Inc.

Education:

**Ph.D. Candidate** Aug 2019 - Present

Pennsylvania State University

Major: Informatics

Advisor: Dr. [Peng Liu](http://s2.ist.psu.edu/pliu/)

**Master**  Aug 2018 – Aug 2019

Pennsylvania State University

Major: Engineering Science and Mechanics

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. 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**
5. 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