

# YU LIANG

Research Scientist in Meta Platforms, Inc.  
Ph.D. of Informatics  
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## Research Interests:

System and Software Security, Operating Systems, Compilers, DBMS, Agentic AI Systems

## Employment

<b>Ph.D. Full-time Research Assistant</b>	August 2025 – Present
<b>Ph.D. Software Engineer Intern</b> Meta Platforms, Inc.	May 2024 – Aug 2024

## Education:

<b>Ph.D.</b> Pennsylvania State University Major: Informatics	Aug 2019 – Aug 2025 Advisor: Dr. <a href="#">Peng Liu</a>
<b>Master</b> Pennsylvania State University Major: Engineering Science and Mechanics	Aug 2018 – Aug 2019 Advisor: Dr. Jian Xu

## Publications:

1. Efficiently Detecting DBMS Bugs through Bottom-up Syntax-based SQL Generation, **Yu Liang** and Peng Liu, **NDSS 2026**
2. Detecting Logical Bugs of DBMS with Coverage-based Guidance, **Yu Liang**, Song Liu, and Hong Hu, **USENIX Security 2022**
3. Who Goes First? Detecting Go Concurrency Bugs via Message Reordering, Ziheng Liu, Shihao Xia, **Yu Liang**, Linhai Song, and Hong Hu, **ASPLoS 2022**
4. Let the DOCTOR Decide Whom to Test: Adaptive Testing Strategies to Tackle the COVID-19 Pandemic, **Yu Liang**, Amulya Yadav, **AAMAS 2021**
5. Parser Knows Best: Testing DBMS with Coverage-Guided Grammar-Rule Traversal, **Yu Liang**, Hong Hu, **arXiv**
6. 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**
7. Tackling Sequential Attacks in Security Games, Thanh H. Nguyen, Amulya Yadav, Branislav Bosansky, **Yu Liang**, **GameSEC 19**

## SKILLS:

- System Security (fuzzing, program analysis), Agentic AI System, Database Management System (DBMS)