YU **LIANG**

Ph.D. Candidate of Informatics Advised by Dr. Hong Hu

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Research Interests:

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

Education:

**Ph.D. Candidate** 8.20.2019 - Present

Pennsylvania State University

Major: Informatics

Advisor: Dr. Hong Hu

**Master**  8.20.2018 - 8.20.2019

Pennsylvania State University

Major: Engineering Science and Mechanics

Advisor: Dr. Jian Xu

**Undergraduate** 9.1.2014 - 7.1.2018

China University of Mining and Technology (Beijing)

Major: Civil Engineering

GPA: 3.66/4.0

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:

* Computer Science:
  + Programming Languages: C, Swift, CUDA, C++ STL, MATLAB, Fortran.
  + Platforms or Software: iOS, Graphical Programming, IBM ILOG CPLEX Optimization Studio, Linux, AutoCAD.
  + Others: AR on mobile, GPGPU, Graphical Programming.
* Engineering Science:
  + General: Engineering Applications of Wave, Particle, and Ensemble Concepts, Electromagnetic Fields.
  + Nano: Low Dimensional Nanoelectronics, Elements of Nano/Micro-electromechanical
  + Failure Analysis: Failure and Failure Analysis of Solids.
  + Others: Brain Machine Interface.
* Civil Engineering: Mechanics of Materials; Applied Mechanics; Solid Failure Analysis etc.
* Language: English; Chinese Mandarin; Chinese Cantonese.

Honors:

* Penn State Capstone Award: Help company Highwood USA build a mobile application that can scan real world objects and render scaled models. The application won Capstone Second Award. (2018)
* ACM Member: Member of ACM (Association for Computing Machinery) club in China University of Mining and Technology (CUMTB).