Yuyang(Peter) Rong

425 La Rue Rd, 2110 Watershed Science ◇ Davis, CA 95616

(+1)530 · 601 · 3646 ◇ PeterRong96@gmail.com ◇ Webpage ◇ Github

EDUCATION

UC Davis   Sep 2019 - Jun 2024
Ph.D. candidate in Computer Science   *Davis, CA*

· Research interest: software security, fuzzing, dynamic taint analysis.

ShanghaiTech University   Sep 2015 - Jun 2019
B.E. Computer Science and Technology   *Shanghai, China*

· GPA 3.80/4 (Ranking: 5/124)

EXPERIENCE

Bytedance   Jun 2020 - Sep 2020
Research Intern   *Mountain View, CA*

· Focus on improving fuzzing branch coverage using principled techniques;

· ***Valkyrie: Improving Fuzzing Performance Through Principled Techniques*** submitted to Euro S&P 2022.

Bytedance   Sep 2018 - Aug 2019
Research Intern   *Beijing, China*

· Security Lab lead by Prof. Hao Chen, main work focuses on integer overflow;

· Main focus on integer overflow, we trigger constrained integer overflow by instrumenting source code using **LLVM**;

· ***IntEgrity: finding integer errors by targeted fuzzing*** published on SecureComm 2020;

ShanghaiTech University   Nov 2017 - Jan 2018
Lab Intern   *Shanghai, China*

· By combining line search and trust region, we designed our subproblem algorithm;

· Implemented our algorithm and subproblem algorithm using Python and did extensive experiments;

· ***An inexact first-order method for constrained nonlinear optimization*** published on *Optimization Methods and Software*

ABB Group   Oct 2017 - Jun 2018
Research Intern   *Shanghai, China*

· Group of 10, Tried to combine robot arm and an indoor mobile car;

· Responsible for the software development of **navigation system**, **mapping system**, and **state machine**;

· Python, C++ and Robot Operating System(ROS) used.

Screen++   Jun 2017 - Jun 2017
Team leader   *Shanghai, China*

· Proposed an application to connect all the screens in different platforms;

· Responsible for the software development & market model; I also did the final presentation;

· Python & Apache used. Group of 5 and won the **3rd prize** in iLab Hackathon.

TECHNICAL STRENGTHS

Programming Languages	Proficient: Rust; Frequent use: C++, C; Knowledgeable: Python
Frameworks	LLVM