Ruixiang Jiang

Curriculum Vitae

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github github.com/RuixiangJiang

KEY

- A CSE undergraduate at Southern University of Science and Technology (SUSTech), China
- Interests: security system, software engineering
- Language skills: C/C++, Java, Python, Rust

EDUCATION

- **Undergraduate:** Computer Science & Technology, SUSTech
  - GPA: 3.73/4.00
  - Learnt courses: Software Engineering, Computer Security, Operating Systems, Computer Networks, Compilers, Embedded Systems and Microcomputer Principle, etc.

WORK EXPERIENCE

- Fall 2021: entered SUSTech
- Fall 2022: entered Professor Yinqian's lab
- Summer 2024: entered Professor Joshua's lab for UCInspire

PROJECTS

- Fall 2023: supported Firecracker virtualization for Asterinas platform
  - Firecracker is an open-source virtualization technology developed by Amazon, tailored for the modern cloud computing landscape. At the same time, Asterinas is a secure, fast, and general-purpose OS kernel, written in Rust and providing Linux-compatible API. The purpose is to support Firecracker virtualization for the Asterinas platform.
  - Details: https://github.com/RuixiangJiang/2023Fall-CS321-Project
- Spring 2024: implemented IMA for Asterinas TDX version
  - Integrity measurement and attestation mechanisms play a pivotal role in ensuring the trustworthiness and security of computing systems. It explores the application of such mechanisms, focusing on the case study of Asterinas, a representative system. Through a comprehensive analysis of Asterinas, this study elucidates the intricacies of implementing and leveraging integrity measurement and attestation support. Furthermore, it discusses the challenges and advancements in this domain. The insights derived from Asterinas serve as valuable guidelines for enhancing integrity assurance in various computing environments.
  - Details: not public yet
- Summer 2024: tried to transform projects using UNSAFE to FFM API version
  - Some Java projects used UNSAFE to deal with problems relative to objects' addresses. However, OpenJDK published FFM API in Java 22, which was potentially able to replace UNSAFE. The purpose is to develop an automatic tool to do the transformation.
  - Details: https://github.com/Software-Aurora-Lab/Benchmarks-for-LLM

ACHIEVEMENTS

- First Prize, National Olympiad in Informatics in Provinces (NOIP, China) Senior, 2016
- First Prize, SUSTech Freshman Scholarship, 2021
- Second Prize, SUSTech Outstanding Student Scholarship, 2022
- Top Ten SUSTech Volunteer Awards, 2022
- Second Prize, SUSTech Outstanding Student Scholarship, 2023