Ruiqi Wang

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EDUCATION

Shanghai Jiao Tong University (SJTU), Shanghai, China   Sep. 2020 – Present

Bachelor student in Information Security (IEEE Honor Class), expected June 2024.

- **GPA: 3.9/4.3 (1/32)**
- **Correlated Curriculums:** Linear Algebra(98), Abstract Algebra(95), Digital Electronic(98), Data Structure(96), Artificial Intelligence(97), Hardware Security(99), Information Security Integrated Practice(97)
- **Research Interests:** System Security, Software Analysis, ML Security, Operating System

RESEARCH EXPERIENCE

Image-based Malware Homology Analysis Shanghai, China   Oct. 2022 – Present

Cooperation project with TOPSEC   Personal Project

Brief introduction: Searched, summarized and redesigned the existing PE(Portable Executable) malware visualization methods and image-based homology analysis methods, collected open source projects and data sets.

- Implemented visualization methods based on Locally Sensitive Hashing(LSH) and Markov Image.
- Optimized the network by transfer learning.
- Two patents expected.

Wireless Side Channel Attack for Bluetooth Devices Shanghai, China   Apr. 2022 – Aug. 2022

Work for National College Student Information Security Contest   Core Team Member

Brief introduction: Realized a wireless side channel analysis system based on repeater, won *1st Prize* in the 15th National College Students Information Security Contest.

- Verified the wireless side channel leakage in noisy environment, summarized wireless signal curve preprocessing and correlation power analysis(CPA) methods.
- Innovatively added the repeater to the system, and analyzed the signal gain theoretically and computationally.

Fault Injection Attacks against TEE Shanghai, China   Jun. 2022 – Sep. 2022

Laboratory Practice

- Understood the basics of fault injection attack, familiar with typical fault injection attack cases in ARM TrustZone and AMD SEV.

Deep Learning for 3D Point Clouds Shanghai, China   Dec. 2021 – Sep. 2022

Laboratory Practice

- Familiar with the deep learning methods for major tasks of 3D point clouds, including classification, object detection and tracking.
- Participated in improving a category-Level 9D pose estimation method(CPPF) by introducing a voting mechanism.

SKILLS

- Programming Languages: Basic Python and C++.
- Development: Basic Web and Android.
- Languages: English - CET4: 656, CET6: 597.
- Security Skills: Basic static analysis and reversing.

HONORS AND AWARDS

SJTU Excellent Student Cadre	March. 2023
SJTU Academic B Scholarship	Oct. 2022
SJTU Ruiyuan - Sequoia Talent Development Fund	Sep. 2021
1st Prize, **Award on National College Student Information Security Contest**	Sep. 2022
SJTU Excellent Student Cadre	Sep. 2022
SJTU Academic B Scholarship	Oct. 2021
National Scholarship	Sep. 2021
SJTU Merit Student	Sep. 2021