ZHAOXUAN (ISAAC) JIN

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Education

Northwestern University Sep. 2023 - Dec. 2024

Master of Science in Computer Science

Southern University of Science and Technology Sep. 2019 - Jun. 2023

Bachelor of Engineering in Computer Science and Technology Shenzhen, Guangdong, China

Relevant Coursework

 DFIR¹ - A • CAT² - A • Internet Security - A • Computer Networks - A

• Operating Systems - A • Computer Security - A • Compilers - A • Machine Learning - A

Internship Experience

Eigent AI Jun. 2024 - Present United States

AI Developer

• One of the core maintainers of CAMEL open-source project (5.3K stars on GitHub).

- Responsible for the docker solutions of the project, maintaining the ghrr registry and the CI/CD pipeline.
- Work on solutions that make multiple LLM agents collaborate to solve tasks.
- Gained expertise in developing LLM agents with comprehensive functionalities based on different backend models, and deploying applications with docker and CI/CD pipelines.

Hangzhou MagicShield Information Technology Co., Ltd

Jun. 2022 - Aug. 2022

Evanston, Illinois

Cloud Security Research Intern

Hangzhou, Zhejiang, China

- The company specialized in providing Kubernetes in-cluster security solutions for enterprises.
- Collaborated with company engineers and Zhejiang University PhD students on researching automating network policy generation for cloud-native applications.
- Solely developed MicroShield, an eBPF-based system that auto-generates policies from in-cluster east-west traffic, with Python and GoLang. This system is now integrated as a submodule in the company's product.
- Gained proficiency in Kubernetes, Docker, cloud-native architecture, and eBPF applications.

Projects

DFIR Simulation for Credential Leaks | Windows, Linux, DFIR

May. 2024

- Simulated a digital forensics and incident response (DFIR) process for a credential leak incident involving a hotel chain.
- Developed hypotheses on the attack chain based on the network topology and created detailed investigation plans.
- Performed malware analysis, memory forensics, and log analysis to construct a timeline of the incident, identify the attack vector, trace the malicious IP address, and assess the extent of data exfiltration.
- Compiled a comprehensive report detailing the attack chain, attack vector, timeline, indicators of compromise, and recommended remediation steps.
- Gained hands-on experience in DFIR, enhancing expertise in real-world incident response processes and approaches.

Multi-Layer Compiler $\mid C++$

Jan. 2024

- Individually developed a multi-layer compiler with modern compiler techniques and architecture.
- This compiler mainly focuses on the front-end and back-end of a modern compiler, including converting source code to intermediate representation (IR) and generating assembly code layer by layer.
- Applied techniques like reaching definition analysis, liveness analysis, graph coloring register allocation, etc.
- Applied simple optimizations like dead code elimination, got the 5th place at the final competition of the course.

LLVM Middle End | LLVM, C++

Dec. 2023

- LLVM is a compiler infrastructure that provides a collection of reusable compiler and toolchain components.
- developed a middle-end pass for LLVM, which focused on optimizing the intermediate representation (IR) of LLVM.
- Applied techniques like constant folding, dead code elimination, and loop unrolling to optimize the IR.

Technical Skills

Languages: Java, C/C++, Python, Rust, JavaScript, HTML, TypeScript

Technologies/Tools: Linux, Windows, PostgreSQL, FTK Imager, Volatility, RegRipper, GDB, Markdown, React.js

¹Digital Forensics and Incident Response

²Code Analysis and Transformation