

# ZHAOXUAN (ISAAC) JIN

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## Education

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### Northwestern University

*Master of Science in Computer Science*

Sep. 2023 – Dec. 2024

*Evanston, Illinois*

### Southern University of Science and Technology

*Bachelor of Engineering in Computer Science and Technology*

Sep. 2019 – Jun. 2023

*Shenzhen, Guangdong, China*

### University of Wisconsin - Madison

*Visiting International Student*

Sep. 2022 – Dec. 2022

*Madison, Wisconsin*

## Internship Experience

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### Hangzhou MagicShield Information Technology Co., Ltd

*Cloud Native Research Intern*

Jun. 2022 – Aug. 2022

*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.

### Shanghai Kachuu Information Technology Co., Ltd

*Software Engineer Intern*

Jul. 2021 – Aug. 2021

*Shanghai, China*

- The company specialized in delivering enterprise backend management solutions.
- Crafted management systems using Vue, Springboot, and MySQL; independently developed two of them.
- Gained expertise in web service architecture and honed full-stack development skills.

## Research Experience

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### An Automatic Configuration-Based Microsegmentation Policy Generation System

Jun. 2023

This work focused on enhancing microservice internal security by automating the generation and updating of microsegmentation policies based on microservice configurations. This approach proactively blocks malicious traffic and shields against threats like lateral movements.

- Developed an eBPF system to validate internal microservice traffic against generated policies.
- Evaluated the system, highlighting its superior efficiency, accuracy, and security enhancements.

## Projects

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### DJL (Open-Source Deep Learning Java Library) | *Java, GitHub*

Jun. 2022

- Contributed to DJL, an open-source deep learning Java library utilized by industry giants like Netflix and Amazon.
- Enhanced DJL by integrating diverse datasets and crafting intuitive interfaces.
- Oversaw team's version control, initiating pull requests to the primary repository.
- Maintained effective communication with project maintainers, with over 1K lines of my code accepted and merged.

### SPL Compiler | *C, Flex, Bison*

Jan. 2022

- Collaborated on a compiler for SPL, a course-specific C-like language.
- Enabled lexical, syntax, and semantic analyses to produce MIPS32 assembly codes.
- Engineered a preprocessor for parsing preprocess directives, including macros and file inclusions.
- Led the design of foundational data structures, such as symbol tables, bolstering subsequent development phases.

### In-campus Second-hand Trading Platform | *Java, Springboot, PostgreSQL, Vue*

Jan. 2022

- Spearheaded the development of an in-campus trading platform using Springboot and Vue.
- Architected the platform's structure and single-handedly crafted the back-end.
- Integrated Tencent Cloud services for security, implementing two-factor authentication and SMS notifications.

## Technical Skills

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

**Technologies/Tools:** Linux, SpringBoot, Flask, GDB, Git, LaTeX, Markdown, React.js, CSS