

Yujian (Richie) Zhou

richiezhouyujz@gmail.com | (646) 623-4317 | <https://www.linkedin.com/in/richiezhou/> | <https://arunike.github.io>

EDUCATION

University of Wisconsin-Madison GPA: 3.8/4.0

Madison, WI

Bachelor of Science in Computer Science and Data Science

September 2020 – Anticipated December 2023

Courses: Data Structure and Algorithms, Artificial Intelligence, Computer Graphics, Database Management Systems, Operating Systems, Software Engineering, Virtual Reality, Data Science Programming, User Interfaces, Big Data, and Mobile System and App.

EXPERIENCE

Software Engineer Intern, Northern Trust

Chicago, IL

June 2023 – August 2023

- Developed and optimized algorithms in **Java** and **C++** to enhance the computational efficiency of NT's Goals Driven Wealth Management platform, leading to an 8% increase in transaction processing speed.
- Implemented and fine-tuned RESTful APIs using **Spring Boot** for efficient data communication within investment reporting trade model microservices, achieving a 15% enhancement in system responsiveness.
- Conducted quantitative analysis and applied statistical techniques in **C++** to optimize cloud-based services, resulting in improved system reliability and a 12% increase in uptime.
- Architected and executed complex **SQL** queries and data models in **Snowflake**, leveraging advanced data analysis and processing skills to accelerate data extraction for investment reporting by 30%, thereby facilitating rapid, data-driven decision-making processes.

Software Developer Intern, Rockitcoin

Chicago, IL

August 2022 – March 2023

- Utilized **TypeScript**, **JavaScript**, **HTML**, **CSS**, & **React** to enhance both frontend and backend services of Rockitcoin's Bitcoin ATM, mobile, and web platform, leading to a 30% improvement in performance.
- Developed intuitive user interfaces with **React** for over 5000 users, enabling real-time display and data modification.
- Improved user interface rendering speed by 10% through debouncing in **React**, effectively limiting API requests from text fields.
- Adopted **HashMap** data structure to store frequently accessed user information efficiently, thereby reducing lookup time by 20% and enhancing system performance.

Full Stack Developer Intern, UNFCU

New York, NY

May 2022 – August 2022

- Refined and optimized **JavaScript**, **HTML**, **CSS**, and **PHP** codes, enhancing cross-browser and cross-platform compatibility of a high-traffic customer-facing website and increasing efficiency by 10%.
- Implemented **Python**-based automation tools for text extraction, keyword search, PDF/PPT merging, and data filtering within our team, leading to a 30% increase in workload efficiency and faster user deployments.
- Utilized the **Next.js** framework to design and implement intuitive entry pages, enhancing user navigation and understanding of company culture, thereby contributing to a 30% increase in customer satisfaction.
- Maintained **SQL** databases with over 150,000+ entries, creating an infrastructure for real-time reporting of key metrics like customer satisfaction, annual revenues, and sales retention rates, providing valuable insights to stakeholders.

PROJECTS

Weather Stream Analytics

November 2023

- Implemented a **Kafka** producer for data ingestion from weather stations and a **Kafka** consumer with exactly once message processing to ensure data integrity for web dashboard summaries.
- Utilized **Spark** Streaming for real-time data processing, generating datasets for ML applications in weather forecasting.
- Maintaining data accuracy and developing predictive models for weather analysis, leveraging **Spark's** capabilities for dynamic temperature averaging and forecast modeling.

Online Shop - <https://github.com/arunike/Online-Shop>

Summer 2022

- Developed an intuitive online shopping platform using **Spring Boot**, enhancing the shopping experience for users.
- Utilized the **Redis** in-memory data structure to facilitate real-time product search and optimize shopping cart functionality.
- Modified the **JavaScript** API to streamline communication between buyers and sellers, improving transaction processing.

Human Resource Management - <https://github.com/arunike/vhr>

Summer 2021

- Constructed a comprehensive management website using **Spring Boot** and **Vue.js**, facilitating efficient management of employees' data, roles, and access.
- Devised and executed a **MySQL** database to securely store and track critical employee data such as job title, salary, and performance review history. Utilized **MyBatis** to achieve the connection between **Tomcat** server and database.
- Modified the **JavaScript** API for efficient delivery notifications between HR and employees, enhancing communication.

SKILLS

Programming Languages: Java, C/C++, Python, R, and SQL

Tech Stacks: JavaScript, TypeScript, HTML, CSS, React, Vue, Spring Boot, Snowflake, Firebase, Redis, NodeJS, Docker, & Kotlin.