Zejun Zhou

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Education

Brown University Sep 2024 – May 2026
Master of Science in Computer Science *Providence, RI*
- Relevant Coursework: Cloud and Datacenter Operating Systems, Computer System

University of Wisconsin-Madison Aug 2020 – May 2024
Bachelor of Science in Computer Science and Data Science *Madison, WI*
- Cumulative GPA: 3.687, Dean's List
- Relevant Coursework: Big Data System, Software Engineering, Operating System, Data Structure and Algorithm
- Clubs: Data Science for Sustainable Development (DSSD), Google Developer Student Club (GDSC)

Experience

Biren Technology *Shanghai, China*
DevOps Engineer Intern June 2024 – Aug 2024
- Developed GPU health check logic in **Golang** for k8s-device-plugin to prevent unhealthy GPU allocation.
- Built and integrated heartbeat checks to k8s-device-plugin for reliable device reporting.
- Created a custom Kubectl plugin to simplify Kubernetes resource management, boosting operational efficiency.
- Optimized the cloud platform's API using **gRPC** and used **gRPC** gateway to provide HTTP API for frontend access.

The People and Robots Laboratory *Madison, WI*
Undergraduate Research Assistant September 2023 – May 2024
- Collaborated with Dr. Bilge Mutlu's group on simulating Petri-net models in robotics, contributing to architecture design.
- Adopted **Cassandra** for efficient data storage and schema design to support simulation logic.
- Built a responsive front-end with **React** and **Reactflow** for interactive simulation, integrated with a **Python Flask** backend.
- Containerized full stack with **Docker** and used **Ngrok** for live demos.

AsiaInfo *Hang Zhou, China*
DevOps Engineer Intern June 2023 – Aug 2023
- Maintain the Resource Monitoring Platform using **Docker** and **Kubernetes**, automating service deployment and scaling.
- Used **Jenkins** to deploy code from Git to the test environment, enabling continuous integration and automated testing.

Computer Science Learning Center of UW-Madison *Madison, WI*
Computer Science Tutor September 2022 – May 2023
- Tutored 30+ students on Computer Science fundamentals in weekly sessions.
- Guided students in debugging using print statements and **GDB** for efficient problem-solving.
- Reinforced CS concepts by asking questions during tutoring and creating video tutorials on YouTube for student access.

Project

Esker, Inc – Company Capstone Project Sep 2023 – Dec 2023
Esker, Inc *Madison, WI*
- Developed key frontend features including file upload, validation, and logging using **React.js**, improving the user experience
- Implemented essential backend features in **Flask** to meet the client requirements and support frontend file operations.
- Served as Scrum Master, facilitating sprint planning and standups, while leading the integration of **Docker**.

HealthHive – **Personal Project** June 2023 – Sep 2023
A web application empowering individuals with personalized health insights and wellness forecasts.
- Engineered a dynamic and interactive frontend using **React.js** and orchestrated a robust **Flask** backend.
- Designed the **Cassandra** database schema for optimal data storage and high-speed retrieval, enhancing the efficiency and reliability of the application.
- Deployed the application using **Google Cloud Platform** (GCP) and Docker.

Publication

- Zhou, Z., Jin, Y., & Praveena, P. (2024). *Statewise: A Petri Net-Based Visual Editor for Specifying Robotic Systems*. Accepted for presentation at UR-RAD Symposium, 2024. Optional publication in AAAI Proceedings.

Skill

Programming Language: Golang, Python, JavaScript, C
Framework: React.js, Flask, Node.js, Kratos
Database: Cassandra, MySQL, MongoDB
Developer Tools: Git, Jira, Notion, Confluence
Operation Skill: Docker, Kubernetes, Contained, Linux