# Zejun Zhou

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#### **Education**

# **University of Wisconsin-Madison**

August 2020 – May 2024

Bachelor of Science in Computer Science and Data Science

Madison, WI

- Cumulative GPA: 3.698, Dean's List
- Clubs: Data Science for Sustainable Development (DSSD), Google Developer Student Club (GDSC)
- Relevant Coursework: Big Data System, Operating System, Software Engineering, Data Structure and Algorithm
- Certification: Google Data Analytics Certification, The Complete 2023 Web Development Bootcamp

# **Internship Experience**

#### **DevOps Engineer Intern**

Hang Zhou, China

June 2023 – August 2023

AsiaInfo Technologies Ltd

- Engaged in the operations team to maintain and iterate the Resource Monitoring Platform using **Docker** and **Kubernetes**, automating the deployment and scaling of services.
- Utilized **Jenkins** to deploy code from company's Git repository to the testing environment, facilitating continuous integration and automated testing processes.

# **Project**

#### HealthHive (Website) (GitHub)

June 2023 – September 2023

A web application that's currently live, empowering individuals with personalized health insights and wellness forecasts.

- Engineered a dynamic and interactive frontend using **React.js** and orchestrated a robust **Flask** backend to serve the application's core functionalities.
- Devised the **Cassandra** database schema for optimal data storage and high-speed retrieval, deployed the cluster to achieve ACID properties, enhancing the efficiency and reliability of the application.
- Leveraged Spark to extract and transform data from OLTP to OLAP, storing transformed data in HDFS to create a scalable and reliable data warehouse.
- Deployed the application using **Google Cloud Platform** (GCP) and Docker, and configured **Nginx** as a reverse proxy to safeguard the application's APIs.
- Designed and executed the scalable application structure, maintained detailed project document.

Sprint (GitHub)

February 2023 – May 2023

A DevOps platform designed to aid students in implementing agile methodologies.

- Engaged in UI/UX design and built interactive frontend features using **React.js**, paralleled by the integration of **Google Authentication** to enhance user experience through aesthetic design and simplified authentication.
- Implemented **caching** and **local Storage** strategies, substantially boosting application performance, improving load times, and delivering a smoother user experience.
- Led a 6-person Agile team as Scrum Master, deploying **Docker** containers with React.js, Flask, and Express, and MySQL to streamline development and ensure stability with CI/CD workflows.

# **Academic Involvement**

# **Undergraduate Research Assistant**

Madison, WI

The People and Robots Laboratory

September 2023 – Current

- Collaborated with Dr. Bilge Mutlu's group to simulate concurrent and asynchronous operations in robotic systems, contributed to application architecture design and state management control.
- Initiated the adoption of **Cassandra** for efficient data writing and secure storage, executing schema designs to support the simulation logic.
- Developed a responsive front-end application with **React**, utilizing the **Reactflow** library for interactive manipulation of nodes, arcs, and tokens, and integrated a **Flask** backend for processing simulation logic.
- Enabled full-stack containerization with **Docker** and implemented **Ngrok** services for live demonstrations, improving real-world applicability and collaboration with peers.

# **Computer Science Learning Center Peer Mentor**

Madison, WI

Computer Science Learning Center of UW-Madison

September 2022 – May 2023

- Facilitated weekly tutoring sessions at the Computer Science Learning Center, assisting over 50 students in understanding fundamental topics of Computer Science
- Provided guidance and support to students in **Python** and **Java** programming for their course projects, helping them navigate challenges and improve their understanding of the subject matter.

# Skill

Programming Language: Python (Proficient), Java, HTML/CSS, JavaScript, SQL, R

Framework: React.js (Proficient), Flask (Proficient), Node.js, Express.js, Bootstrap, Spark

Database: Cassandra, MongoDB, MySQL, ArangoDB

Developer Tools: Git, Docker, Kubernetes, Hadoop, Kafka, Big Query