Zichen Yu Green Card Holder

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EDUCATION

University of California, San Diego

CA, USA

Bachelor of Science. Data Science. GPA:3.7/4.0

Sep. 2021 - March. 2025(expected)

Summary: I am a Full Stack developer with a strong emphasis on backend software development, seeking an internship as a Backend Software Engineer.

SKILLS

- Programming: Java, Python, C, C++, JavaScript, Typescript, CSS, HTML, SQL
- Framework: Spring, Node.js, React, Tornado
- Tools: Git, Mysql, MongoDB, Vim, Docker

WORK EXPERIENCE

Backend Software Developer Intern | Powercore

(Python, Java, Spring Boot)

August 2023 – September 2023

- Build integration test to test electric car charging point reservation charging features under different scenario.
- Optimized OCPP Charging Platform Configuration Page **SQL** Query speed by 0.7 seconds by applying appropriate index.
- Implemented and tested backend Java changes to support Continue Charge Switch feature

Software Developer Intern | NJU Digital

June 2023 – July 2023

(Python, Tornado, Jmeter)

- Leveraged **JMeter** threads to simulate user interactions and PDA-driven processes, proactively conducting stress and automated tests to identify and capture bottlenecks for two customers.
- Implementing **Python Tornado** advanced editing and bulk operation features on the storage platform, improving user satisfaction rating by 3%.

Software Developer Intern | GoValley

June 2022 – September 2022

(Spring Boot, Java, Angular)

- Participated in a 6 people team to design and develop a student course registration website using SSH framework (Spring, Spring MVC, Hibernate)
- Designed and built a relational database schema with MySQL to process student registration and students' information.
- Designed and implemented backend **RESTful** APIs and Constructed UI components in the frontend using Angular to display course info, user profile and animate course registration process
- Performed unit test and integration test on APIs using Postman with 75% code coverage to improve system reliability
- Deployed Spring Boot on AWS using Elastic beanstalk service.

PROJECT EXPERIENCE

AI Doctor

December 2023 – Present

(Full-Stack, React, Node.js, MongeDB, Typescript, Docker, K8s, Kafka, GraphQL)

- Developed customer interface, facilitating interaction with OpenAI-powered responses and database interactions, and another view-only UI for doctors enabling appointments, pre-screening, and doctor recommendation features.
- Implemented backend (Node.js) and frontend (React) using MERN stack with Typescript, ensuring stronger type-checking and code reliability.
- Utilized **Docker** for containerization and **Kubernetes** on **AWS** for automated scaling and management, ensuring high scalability and consistency in deployment.
- Leveraged **AWS Lambda** serverless services for specific functionalities and implemented **CI/CD** pipelines for automated build, test, and deployment.
- Explored **Kafka**'s capabilities for scalable messaging and event-driven architecture, focusing on scalability and system decoupling, and **GraphQL** for efficient data fetching and manipulation, although not directly integrated into the final application.

WeRide Carpool Application

November 2022 - Present

(Full-Stack, Java, Spring Boot, React, MySQL)

- Confirm tech stack and set up weekly sprints.
- Worked with UX, used **React** to build mobile friendly frontend, including Sign In, Payment, and Recent Driver pages.
- Used **Spring Boot** to build APIs including trip detail, payment method, and matching driver and rider. .
- Used **Postman** to run unit tests and server stability tests with 100% code coverage to increase system reliability.