# Zichen Yu

**Green Card Holder**

wallyzichen@gmail.com | San Diego, CA, 92122 | +1 619-208-1312


## EDUCATION

**University of California, San Diego** Sep 2021- March 2025(expected)

**Data Science. GPA:3.7/4.0**

Related Course: Database Implementation, Data Structures and Algorithms, Operation System, Cloud Computing

## SKILLS

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

## WORK EXPERIENCE

**Software Engineer Intern | Eth Tech** **December 2023 – Present**

***(Full-Stack, Next.js, Node.js, MongeDB, Typescript, AWS)***

- Developed a full-stack application enabling users to locate doctors by zip code and disease type, schedule appointments and access detailed doctor information.
- Developed a robust and efficient full-stack application using **Next.js** for the frontend and **Node.js** for the backend with **TypeScript**, maintaining a low error rate (<1% of API requests) and high performance (API responses <200ms)
- Utilized **AWS** Lambda, **ECR** for Docker Image Registry, **S3** for code storage, **API Gateway**, and **IAM** for deploying backend, considering AWS Lambda compatibility and cost-effectiveness over **ECS**.
- Customized frontend and backend workflows and integrated **CI/CD** processes using **GitHub Actions**.
- Explored **AWS S3** (lacks SSR) and **ECS** (costly and complex), ultimately opting for **Vercel** due to its simplicity, SSR support, and cost-effectiveness to deploy frontend.
- Investigated various message queues, opting for **Kafka** to Achieved a message processing latency of under 10ms.
- Received positive feedback from users and client, with a 4.5-star rating on monthly survey, highlighting the ease of use and helpfulness of the doctor locating and appointment scheduling features.

**Backend Software Developer Intern | Powercore**

***(Python, Java, Spring Boot)*** **August 2023 – September 2023**

- Developed **Python Unit tests** to evaluate the electric car charging point reservation system under various scenarios, identified and worked with colleagues to fix 2 potential issues, ensuring robust functionality and reliability
- Enhanced the database query speed for the OCPP Charging Platform Configuration Page by 25% through effective indexing and Query Optimization, Improved user satisfaction score by 15% through faster loading times.
- Implemented and rigorously tested backend **Java** modifications to support the 'Continue Charge Switch' feature, contributing to enhanced system capabilities.

**Software Developer Intern | NJU Digital** **June 2023 – July 2023**

***(Python, Tornado, Jmeter, AWS)***

- 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.
- Developed advanced editing and bulk operation features using **Python** in the **Tornado** framework for the storage platform, leading to a 3% increase in user satisfaction rating in monthly surveys.
- Implemented a monitoring system using **Datadog** and managed application secrets with **AWS** Secrets Manager, ensuring continuous monitoring and enhanced security for the application.

## PROJECT EXPERIENCE

**GamePigeon Word Hunt Game Solver** **December 2023 – Present**

**(*Full-Stack, Next.js, Python*)**

- Developed a full-stack application for Gamepigeon's Word Hunt, enabling gamers to input their available characters and generate the longest possible words.
- Implemented solver logic in **Python** and an interactive frontend with **Next.js**, featuring visual guidance for word formation using arrows. Deployed the frontend on **Vercel** for seamless accessibility and optimal performance.

**WeRide Carpool Application** **November 2022 – Present**

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

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