

Yueheng Yuan

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SUMMARY

A motivated software engineer with experience in scalable web development, database management and algorithm design with Java and JavaScript. Passionate about delivering the full-stack web and mobile development and cloud solutions.

TECHNICAL SKILLS

- Language: JavaScript, TypeScript, HTML/CSS, Python, Java, C/C++, Go, Ruby, Swift, R
- Framework & Tools: React, Vue, Angular, Flask, Django, Express, Node.js, Maven/Gradle, Spring Boot
- Databases & Cloud Services: PostgreSQL, MongoDB, MySQL, Redis, AWS, Docker, CI/CD, Git

WORK EXPERIENCE

CLYNK

July 2024 – December 2024

Software Developer

- Developed and maintained a scalable web platform using **Vue3**, **TypeScript**, managing bottle recycling and invoices across multiple states, ensuring a seamless and scalable user experience
- Collaborated with product managers and analytical teams to implement interactive UI components
- Designed and developed **REST API** with **Node.js** and **PostgreSQL**, handling complex data processing challenges and ensuring frontend-to-backend communication
- Improved platform performance by **30%** by resolving critical performance bottlenecks; Implemented unit testing and continuous integration in a DevOps environment

PROJECTS

GeneWeaver Backend System, *geneweaver.org*

August 2023 - December 2023

- Developed **REST API** for Jackson Laboratory using **Python & Flask** in **Scrum** environments
- Integrated analytical tools in microservices and mitigated downtime during tool update by **18%**
- Developed backend business logics including user authentication/sign-on and gene set upload; Performed data insertion and retrieval with **PostgreSQL** and **SQ-Lite**
- Optimize runtime performance on concurrent tasks using **Async** Python and recurrent analytical queries using **Page Caching**; Implemented secure data access point using **HTTPS** protocols & web authentication

eCommerce Platform

May 2023 - December 2023

- Built up a **MERN** stack-based eCommerce platform; Developed and maintained software features to enhance customer engagement through front-end **UI** components, REST API services, and data modeling
- Designed data model using **MongoDB**; integrated **Mongoose** for query searching performance enhancement and **Redis** for schema definition; Leveraged **JWT** for API authentication and **Redux** Toolkit for state management
- Applied **Postman** for end-to-end testing and **Stripe** API for payment; Utilized **Heroku** for deployment & **CI/CD** pipeline for smooth deployment and continuous integration

Online News Website

January 2023 - August 2023

- Developed and launched a web application for displaying popular trends from various sources using **Java** under the **Spring Boot** framework in **Agile** development cycles
- Implemented event streaming service using **Kafka** to transmit top trending videos based on views and kudos
- Incorporated **Redis** cache into backend service for distributed lock and query reduction
- Designed a backend notification system and stored data into **MySQL** database; Constructed a static HTML converter using Apache and Nginx with minimized loading time

EDUCATION

Northeastern University

September 2022 - May 2025

Master of Science in Computer Science, GPA: 4.0