

Yuqi Guo

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EDUCATION

Syracuse University (SU)

M.S: Computer Science (GPA: 3.6)

Syracuse, New York

08/2022-05/2024

University of Liverpool (UoL)

Liverpool, UK

B.S: Information and Computing Science (GPA: 3.4 *First Class*)

09/2017-07/2022

Relevant Courses: Data Structures, Algorithms, Operating Systems, Databases, Computer Networking, Human-Computer Interaction, Software Engineering, Mobile Computing, Computer Graphics, Machine Learning

TECHNICAL SKILLS

Languages & Frameworks: Java, Python, PHP, SQL, MongoDB, Node.js, Spring Boot, Flask, Vue.js, JUnit, Hadoop, Next.js

Tools & Platforms: AWS, Azure, Heroku, Firebase, Docker, Kubernetes, GitHub, Postman

Core Skills: Backend Development, System Design, CI/CD, OOP, QA, E2E Testing, Cloud Platform and Database Management

WORK EXPERIENCE

CuraStone Corp

Bellevue, WA, United States

Backend Developer Intern | *Spring Boot, REST API, Docker Container, DynamoDB, AWS, E2E Test,*

08/2023-12/2023

- Created a PDF-to-interactive learning materials conversion tool with **Spring Boot** using **RESTful APIs** that successfully processed over 5,000 documents in two months; integrated secure **JWT** authentication via **AWS Cognito**.
- Deployed the application on **AWS ECS** via **Docker Containers**, leveraging **DynamoDB** for data management, enhancing scalability and deployment efficiency.
- Implemented **Newman** (via **Postman**) **E2E tests** within GitHub Actions for automated service monitoring and rollback, achieving 99.9% service availability. Conducted robust testing using **Mockito**, **JUnit**, and documented APIs with **Swagger 2**, ensuring high-quality code and effective frontend integration.

Weina Technology Company

Lanzhou, China

Backend Developer Intern | *Python, Docker & Kubernetes*

9/2021-02/2022

- Developed and maintained backend services for an e-commerce platform using the Python Flask framework, ensuring robust and **scalable application performance**, aligned with the job's emphasis on backend development.
- Led **Kubernetes cluster deployment**, managing containerized applications for improved scalability and reliability. Implemented load balancing and auto-scaling to ensure Cloud-based application deployment's availability.
- Utilized **Redis** for efficient master/slave node status management in Kubernetes, enhancing **data synchronization** and **system resilience**, which aligns with the job's focus on database management.

PROJECTS

TalkNest (Online Chat & Video App) | *React, Node.js, WebRTC, Socket.io, Firebase and Heroku* 🌐 01/2024-03/2024

- Developed the backend using **Node.js**, **Express**, **Firebase**, and **Socket.io**, enabling real-time text messaging and **WebRTC**-based video/audio calls with secure **User Authentication**, including Google Sign-In. [Demo](#)
- Implemented **CRUD APIs** for user profile management and chat operations, using Firebase Firestore for live data updates and **Socket.io** for real-time communication. Achieved a 99.9% deployment success rate on **Heroku** by integrating **CI/CD Pipelines** (via GitHub Action) and Cypress for **E2E Testing**.
- Facilitated seamless backend operations for user search functionality and file sharing using **Firebase Storage**, ensuring a robust and scalable communication platform with real-time updates and profile management.

PolyglotBot (AI English Content Chatbot) | *Microservices, Spring Boot, Flask and LLM* 🌐

02/2024-4/2024

- Developed a scalable microservice backend embedding **OpenAI** and Rapid API to create personalized English articles and natural-sounding audio for non-native speakers. Deployed using **Docker Containers** on **Heroku**, and managed peak user requests with a **Load Balancer**. [Demo](#)
- Implemented JRebel for **Hot Deployments**, enhancing rapid development cycles, and integrated Eureka for service discovery, along with a **Gateway** for routing and security, incorporating **Circuit Breaker** (Resilience4j) and **Message Queue** (Kafka) for Inter-Process Communication.
- Utilized Zipkin for **Distributed Tracing** and monitored performance with **Prometheus** and **Grafana**, ensuring effective fault tolerance and reliability.

Gift Galaxy Microservices | *Microservices, Spring Boot, Postman, Docker, Kubernetes and Helm* 🌐

02/2023-05/2023

- Engineered a microservices-based platform for gift recommendation system, utilizing **Docker** and **Helm** for container orchestration, aligning with job requirements for scalable microservices architecture.
- Orchestrated database connectivity and management with **Docker Compose**, integrating **PostgreSQL** and **MySQL** to provide comprehensive solutions, showcasing advanced expertise in database orchestration.
- Implemented robust **CI/CD pipelines** in **GitHub**, integrating **Kubernetes** secrets and **PVCs** for secure and persistent data storage, and set up a **Gateway** with **Kubernetes** as a discovery service, matching the requirements for continuous development and secure deployment practices.

○ Explore more on my [Portfolio](#). Crafted with *Next.js*, *Version-Controlled* via Git, and hosted seamlessly on *Vercel*. 🌐