Yuqi Guo

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EDUCATION

Syracuse University (SU)   Syracuse, New York
M.S: Computer Science (GPA: 3.7)   08/2022-05/2024(Expected)
University of Liverpool (UoL)   Liverpool, UK
B.S: Computer Science (GPA: 3.6 *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: Java, Python, HTML5, Haskell, PHP, Kotlin, MySQL, SQLite, MongoDB, Node.js, C#, Git
Frameworks/Libraries: TensorFlow, JUnit, Spring Boot, React, Linux, Vue.js, Hadoop, Next.js
Platforms: AWS (ECS, EC2, S3, Cognito), Heroku, Firebase, Vercel, Supabase
Tools: Postman, Docker & Kubernetes, GitHub, Swagger UI, JWT Authentication/Authorization
Proficiencies: Java Web, Android Programming, System Design, Continuous Integration/Continuous Deployment (CI/CD), OOP, QA Test, E2E Test, Computer Network, Database, Data Mining, Machine Learning and Computer Vision (CV)

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
- Developed **RESTful API**s using **Spring Boot** for a PDF-to-interactive learning materials conversion tool, processing over 5,000 documents in two months. Deployed the application on **AWS ECS** via **Docker Containers**, enhancing scalability and deployment efficiency. Strengthened API security with **JWT** and Amazon **Cognito** integration.
- Applied **DynamoDB** for efficient data management and integrated robust testing with **Mockito**, **JUnit**, and **Swagger 2** for API documentation, ensuring high-quality code and seamless frontend integration.
- Implemented **Newman** E2E tests within GitHub Actions for automated service monitoring and rollback, achieving 99.9% service availability.

Weina Technology Company   Lanzhou, China
Backend Developer Intern | *Python, Docker* & *Kubernetes*   9/2021-02/2022
- Developed and maintained backend services using Python **Flask** framework, ensuring robust and scalable application performance.
- Led **Kubernetes** cluster deployment, managing containerized applications for improved scalability and reliability. Implemented load balancing and auto-scaling to ensure high system availability.
- Utilized **Redis** for efficient **master**/**slave** node status management in **Kubernetes**, enhancing data synchronization and system resilience.

PROJECTS

TalkNest (Online Chat & Video App) | *React, Node.js, WebRTC, Socket.io, Firebase and Heroku* ⌽   01/2024-03/2024
- Engineered a real-time chat and video application using **React** and **Node.js**, facilitating over 2000 message exchanges and video calls for 100+ users. Achieved 99.9% deployment success rate on **Heroku** by integrating **CI/CD pipelines** and employing **Cypress** for extensive **E2E testing** via **GitHub Actions**. Demo
- Developed the frontend using React, employing context for state management, **Socket.io** for live chat, and **WebRTC** for video calls. Integrated **Firebase** to enable real-time mapping of uid with socketId for video calls and to facilitate message storage.
- Crafted Node.js/Express backend, featuring **CRUD API**s and Firestore for data handling. Enhanced security with third-party authentication and JWTs, plus WebRTC for live video chats. Quality assured with **Jest Mock Unit Test** for CI/CD.

PolyglotBot (AI English Content Chatbot) | *Microservices, Spring Boot, Flask and LLM* ⌽   02/2024-4/2024
- Developed a microservice backend embedded **OpenAI** and Rapid API to generate personalized English content and speech outputs. Deployed Docker containers on Heroku, efficiently managing over 300 user requests at peak times within the last 20 days using a **Load Balancer**. Demo
- Implemented **JRebel** for seamless **Hot Deployments**, enhancing rapid development cycles. Integrated **Eureka** as a discovery server and set up a secure **Gateway** on **Google Cloud** using Keycloak for handling authorization requests.
- Achieved low-latency synchronous communication by **Circuit Breaker** with **Resilience4j** and facilitated asynchronous messaging through **Kafka**. Utilized **Zipkin** for distributed tracing, with metrics visualization in **Prometheus** and **Grafana**.

Gift Galaxy Microservices | *Microservices**, Spring Boot, Postman, Docker, Kubernetes and Helm* ⌽   02/2023-05/2023
- Engineered a microservices-based platform for Gift Galaxy, utilizing **Docker** and **Helm** for container orchestration, and **Skaffold** for continuous development, ensuring scalable and efficient service deployment.
- Orchestrated database connectivity and management using Docker Compose for **MongoDB** and set up **NGINX** Ingress Controller in Kubernetes for optimal traffic management and service reliability.
- Implemented robust **CI/CD pipelines** in GitHub, integrating **Kubernetes** secrets and **PVC**s for secure and persistent data storage, and conducted thorough service testing to maintain high availability and performance.

o   Explore more on my Portfolio. Crafted with *Next.js* and *Supabase*, *Version-Controlled* via Git, and hosted seamlessly on *Vercel.* ⌽