

Yuqi Guo

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EDUCATION

Syracuse University (SU)

M.S: Computer Science (GPA: 3.7)

University of Liverpool (UoL)

B.S: Computer Science (GPA: 3.6 *First Class*)

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

Syracuse, New York

08/2022-05/2024(Expected)

Liverpool, UK

09/2017-07/2022

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, DynamoDB, AWS, E2E Test*

08/2023-12/2023

- Developed **RESTful APIs** using **Spring Boot** for a PDF-to-interactive learning materials conversion tool, processing over 5,000 documents in two months on **AWS ECS**. 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.

Tree Technology Co., Ltd.

Suzhou City, China

Software Development Engineer Intern | *MyBatis, Vue.js*

06/2020-08/2020

- Developed an online image annotation platform, enhancing user interaction and data handling, resulting in a 25% increase in user efficiency.
- Led backend development for efficient data storage, creating modules to store annotation data in **JSON**, using Java for versatile format conversion, improving processing speed by 30%.
- Integrated **MyBatis** for efficient database interactions and employed **Vue.js** to craft intuitive web modules, streamlining user login, image upload/download, and data querying processes.

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 APIs** 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.

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** Desktop and **Helm** for container orchestration, and **Scaffold** 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 **PVCs** for secure and persistent data storage, and conducted thorough service testing to maintain high availability and performance.

Net Disk Storage for Large Files | *Python via UDP Socket* 🐙

09/2019-12/2019

- Developed a custom pipelined protocol over **UDP** socket to replace the conventional stop-and-wait method, enhancing transmission efficiency by 33% for both large file uploads and downloads.
- Incorporated **Cipher Block Chaining (CBC)** encryption within the transmission pipeline, ensuring data security and reliability.
- Adhered to **Consistency, Availability, and Partition-Tolerance (CAP)** principles during multi-threaded operations, facilitating efficient and simultaneous file uploads and retrievals in the net disk system.

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