

Jiahao Guo

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EDUCATION

Carnegie Mellon University

Master of Science in Electrical and Computer Engineering (GPA: 3.9/4.0)

Pittsburgh, PA

Dec. 2025

University of California, Irvine

Bachelor of Science in Computer Science; Bachelor of Arts in Economics (GPA: 3.9/4.0)

Irvine, CA

Jun. 2023

SKILLS

Languages: Python, Java, C/C++, TypeScript, JavaScript, SQL, HTML/CSS, Go, Shell

Frameworks: React, Node.js, Django, Flask, JUnit, Spring Boot, Ant Design, FastAPI, Redux

Developer Tools: Git, Docker, Google Cloud Platform, VS Code, AWS, Azure, CI/CD, Jenkins, Nginx, Kubernetes

EXPERIENCE

Software Engineer Intern

Meituan

May 2024 – Aug. 2024

Shanghai, CN

- Developed 4 web applications for Meituan's ML sector using **ReactJS**, **TypeScript**, and **Ant Design**, optimizing state management with **Redux** and enhancing rendering with React hooks and memoization
- Architected microservices with **Spring Boot**, leveraging **RESTful APIs**, **Eureka** for service discovery, and **Ribbon** for load balancing to improve system modularity and scalability
- Integrated **FastAPI** into the backend, employing asynchronous I/O operations to reduce latency, and optimized **PostgreSQL** query performance through indexing and query restructuring
- Implemented CI/CD pipelines with **Jenkins**, automating build and deployment processes using **Docker** and **Kubernetes** to streamline integration and minimize manual intervention
- Built 30+ web pages for deploying recommendation models focused on content suggestions, incorporating relevant feature engineering to enhance model performance

Software Engineer Intern

Douller LLC

Aug. 2023 – Jan. 2024

Tampa, FL

- Led a team of 4 to revamp Douller's second-hand trading app, implementing new features with **Dart** and maintaining the backend using **Node.js**
- Introduced **MongoDB** with tailored schema designs for data retrieval, while employing **Redis** to cache product listings and session data with automatic invalidation, reducing database load and ensuring real-time accuracy
- Integrated **Elasticsearch** by optimizing index structures, using bulk indexing for large datasets, caching frequent queries, and improving search performance through query filtering and sorting
- Managed 4 app version updates, resolving database migration challenges by coordinating schema changes with zero-downtime deployment strategies and automated rollback mechanisms to maintain app stability

Software Engineer Intern

EdgeDevice.AI LLC

Jul. 2022 – Aug. 2022

Redwood City, CA

- Developed a full-stack stock valuation program for S&P 500 companies using **React** and **Django**, integrating **ARIMA** and **ARCH** models for advanced financial analysis and portfolio optimization
- Retrieved and processed extensive financial datasets via the **Yahoo API**, implementing batch processing techniques and optimizing **MySQL** storage through partitioning and indexing to enhance query performance
- Utilized **AWS EC2** for deployment and **RDS** for database management, ensuring reliable infrastructure while minimizing manual intervention for infrastructure management
- Enabled real-time access to stock valuations by symbol or category, driving a 30% increase in user engagement

PROJECTS

Interactive Kids Game Website | Python, Flask, React, MongoDB, GCP

Apr. 2023 - Jun. 2023

- Led a team of 5 members to develop a Kids' Game Website focused on marine mammal conservation, utilizing **Flask** and **React** to design 4 different engaging and educational games, puzzles, and quizzes
- Deployed a Python **Flask** backend on **Google Cloud Platform**, separating development from production environments to increase system reliability
- Consolidated **MongoDB** with **TTL** indexes to manage session expiration and enforce API rate limiting, utilizing compound indexes for efficient lookups and ensuring smooth traffic handling
- Automated CI/CD pipelines with **GitHub Actions**, defining workflows for automated testing and deployment, and used **Terraform** to provision and manage infrastructure, ensuring consistent environments across deployments