Jiahao Guo

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EDUCATION

Carnegie Mellon University

Pittsburgh, PA

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

Dec. 2025

• Course: Building Scalable Distributed Systems, Cloud Computing, Database Systems, Cloud Technologies

University of California, Irvine

Irvine, CA

Bachelor of Science in Computer Science — GPA: 3.9/4.0

Jun. 2023

Course: Data Structures and Algorithms, Operating Systems, Computer Networks, Data Processing and Analysis

EXPERIENCE

Software Engineer Intern

May 2024 – Aug. 2024

Meituan | Spring Cloud, PostgreSQL, React, Redis, Canvas

Shanghai, CN

- Refactored a multi-platform system for managing machine learning workflows with **Spring Boot** and **Spring Cloud**, integrating 20+ services, resulting in a 30% improvement in system reliability
- Optimized database with PostgreSQL indexing and ShardingJDBC, reducing query time to 50ms
- Implemented visualization framework with HTML5 Canvas, Fabric.js, and WebSocket, rendering 500+ nodes
- Developed dynamic and reusable forms with **React**, **Context API**, and **Yup**, reducing development time by 60%
- Improved frontend using Redux-Saga and Redis caching, achieving a 3x improvement in response times

Software Engineer Intern

Aug. 2023 – Jan. 2024

Douller LLC | Flutter, Express.js, MongoDB, Elasticsearch

Tampa, FL

- Developed trading platform with Flutter serving 50K+ users, reducing load time by 60% with lazy loading
- Designed backend using Express.js and Redis caching, handling 1M+ requests at 99.9% hit rate
- Optimized MongoDB with sharding for 500GB+ data, achieving sub-100ms queries for 100K+ transactions
- Implemented search with Elasticsearch custom analyzers, improving accuracy by 40% across 500K+ products

Software Engineer Intern

Jul. 2022 – Aug. 2022

EdgeDevice.AI LLC | React, Django, AWS, RDS PostgreSQL

Redwood City, CA

- Built stock valuation site with **React** and **Django**, achieving 99% accuracy using **ARIMA** and **ARCH** models
- Reduced RDS PostgreSQL query latency from 300ms to 80ms with composite indexes on time and company
- Automated stock data fetching with AWS Lambda and Yahoo Finance API, processing 10K+ records daily
- Stored stock data in AWS S3 with YYYY/MM/DD hierarchy, archiving to Glacier to cut storage costs by 40%
- Implemented Pandas in Django views for financial metric calculations, enabling dynamic Plotly visualizations

Projects

E-commerce Microservices Platform | Spring Cloud, MySQL, Redis, RabbitMQ, Docker Jan. 2024 - Apr. 2024

- Developed distributed shopping system handling 100K+ daily using Spring Cloud microservices architecture
- Implemented distributed transaction management with Seata, achieving 99.99% transaction consistency
- Deployed microservices using **Docker** and **Kubernetes**, achieving zero-downtime deployment
- Built messaging system with RabbitMQ for order processing, handling 1000+ messages/second

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

Apr. 2023 - Jun. 2023

- Led development of educational gaming platform serving 10K+ monthly users, achieving 98% user satisfaction
- Implemented server-side rendering with **React** and **Flask**, reducing initial page load time by 60%
- Designed MongoDB schemas with TTL indexes, achieving sub-50ms query response time
- Established CI/CD pipeline with **GitHub Actions**, reducing deployment time from hours to 15 minutes on **GCP**

SKILLS

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

Framework: Spring Cloud, Spring Boot, MyBatis, Django, Node.js, Express.js, React.js, Flutter, Redux, Next.js

Database & Cache: MySQL, PostgreSQL, MongoDB, Redis, Elasticsearch, Cassandra, Kafka, Spark

Cloud & DevOps: Docker, Kubernetes, AWS, GCP, CI/CD, Jenkins, Terraform, RabbitMQ