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 multi-platform system with **Spring Boot** and **Spring Cloud**, integrating 20+ services with load balancing via **Eureka**, achieving high availability and reducing latency by 15%
- Optimized database with **PostgreSQL** indexing and **ShardingJDBC**, reducing query time to 50ms
- Implemented interactive visualization with **HTML5 Canvas**, **Fabric.js**, and **WebSocket**, rendering 500+ nodes
- Developed dynamic 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 | 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 | Spark, Kafka, Hadoop, HDFS
Redwood City, CA

- Built data pipeline for financial trading with **Spark** and **Kafka**, processing 500K records/minute at 99% accuracy
- Enhanced streaming using **Structured Streaming** with windowed aggregations, achieving 3x throughput
- Managed **Hadoop** platform for 5TB+ daily data, optimizing **MapReduce** for 50% faster processing speed
- Designed storage with **HDFS** 3x replication for 100TB+ data, reducing costs by 40% via hot/cold separation

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
Backend Development: Spring Cloud, Spring Boot, MyBatis, Django, Node.js, Express.js, RESTful APIs
Frontend Development: React.js, Flutter, Redux, Ant Design, HTML5/CSS3, Webpack, Next.js
Database & Cache: MySQL, PostgreSQL, MongoDB, Redis, Elasticsearch, Cassandra
Cloud & DevOps: Docker, Kubernetes, AWS, GCP, CI/CD, Jenkins, Terraform, Prometheus
Big Data & Messaging: Apache Kafka, RabbitMQ, Hadoop, Spark, HDFS, Apache Flink