

Yinmingren(Flynn) Fu

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EDUCATION

Santa Clara University

Master of Science Computer Science and Engineering

Sep. 2024 – Jun. 2026

San Jose, CA, United States

South China University of Technology

Bachelor of Science Information and Computing Science

Sep. 2020 – Jun. 2024

Guangzhou, China

TECHNICAL SKILLS

Language: Golang, C/C++, Java, Python, SQL, JavaScript, Typescript, Shell/Bash

Framework: Kubernetes, Spring Boot, Zookeeper, Kafka, Mybatis, React, Android Studio, AWS EC2, Pytorch

Databases: MySQL, SQLServer, SQLite, Redis, RocksDB, MongoDB, AWS S3

Tools: Git, Docker, gRPC, Istio, Protobuf, earthly, cmake, Maven, Jenkins, Harbor, Grafana, Prometheus

WORK EXPERIENCE

Software Engineer Intern

Tecent - IEG Morefun Game Studios

Jun. 2025 – Present

Shenzhen, China

- Backend development engineer intern at Tencent IEG group - Morefun studios.

Software Engineer Intern

ZWSoft

Jul. 2023 – Oct. 2023

Guangzhou, China

- Designed a high-performance, low-latency **memory pool** for 3D engineering software using **STL** and **Boost**.
- Implemented a **Singleton-based custom allocator** with segregated storage for vertex, line, and polygon objects, boosting geometry processing speed by **40%** and reducing memory usage by **15%** through **memory alignment**, **contiguous block preallocation**, and **placement new** for object reuse.
- Utilized **perfect forwarding** with **templates** to eliminate unnecessary copies. Ensured **thread safety** with **std::atomic** for lock-free pointer operations and **std::mutex** for secure block allocation and recycling.
- Conducted comprehensive memory analysis and multi-threaded tests with **Valgrind**, functional testing with **CTest**, and performance profiling using **perf**, ensuring correctness, robustness, and efficiency.

PROJECT EXPERIENCE

CodexNote: Technical Notes & Code Sharing Platform

Apr. 2025 – Present

Framework: Java, Spring boot, Mybatis, MySQL, Redis, React, Typescript

- Developed a Note Sharing Platform with **React/TypeScript**, and **Spring Boot/Mybatis**, implemented **JWT** and **Spring Security** for authentication and access control.
- Applied **Docker** for containerization and deployed on **AWS Elastic Beanstalk**, achieving a 35% improvement in data access speed by integrating **AWS S3** and optimizing data workflows with **MySQL** and **Redis**.

Distributed KV database based on Raft consensus algorithm

Dec 2024 – Apr 2025

Framework: C++, Boost, STL, Muduo, gRPC, Protobuf

- Implemented **log replication** and **leader election** for the Raft consensus algorithm, leveraging **thread pool** to manage heartbeat and election tasks, ensuring log consistency and cluster stability.
- Established inter-node communication using **gRPC** and **Protobuf**, enabling efficient, scalable RPC request and improving system extensibility.
- Integrated **RocksDB** as the local storage engine on each node, forming a Raft-coordinated, strongly consistent key-value store with high-performance data storage and retrieval.

MathMind: LLM-powered Math Helper – Scan & Solve Instantly

Dec. 2023 – May. 2024

Framework: Python, Java, Kotlin, SQL, Flask, PyTorch, Android Studio, Docker, kubernetes

- Developed an Android app with embedded **SQLite** for local storage, backed by **Flask microservices**, with **RESTful APIs** and **WebSocket** support.
- Hosted image recognition (OCR) models and fine-tuned ToRA-7B/Llama3 models on AWS SageMaker, integrating Gemini and GPT APIs for scalable math problem solving services.
- Containerized **microservices** with **Docker**, orchestrated by **Kubernetes** and deployed on **AWS EC2**, achieving **10w QPS+**, sub-6s latency, and supporting **100+ concurrent sessions**.