IAN (HSINYEN) WU
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EDUCATION

Northeastern University   Sep 2022 – May 2025
Master of Science in Computer Science, GPA: 3.73/4.0   *Boston, MA*
- Courses: Algorithm, Object-Oriented Design, Cloud Computing, Computer Networking, Mobile Development, Database Design, Web Development, Machine Learning

WORK EXPERIENCE

Stealth Startup   Oct 2024 – Present
Software Engineer Intern   *Chicago, IL*
- **Parallelized 1,000+ high-frequency trading simulations**, by redesigning monolithic task scheduling system into a distributed, cloud-native platform using Rust.
- Designed **fault-tolerant master-worker architecture** for asynchronous task communication using NATS JetStream, Kubernetes, and AWS S3 storage.
- **Ensuring system resilience and continuous operation** through leader election with etcd for master node.

AI Roboto Edu   May 2024 – Oct 2024
Full Stack Engineer Intern   *Los Angeles, CA*
- Developed a full-stack solution for an online education startup using Spring Boot, MySQL, React, and Redux.
- **Optimized backend APIs, cutting response time by 20%** through MySQL query optimization, caching, and efficient data handling.
- **Improved responsiveness and reducing TTI by 15%** by implementing asynchronous Redux state management.
- Automated development workflows with Bash scripts, accelerating release cycles and enhancing team efficiency.

PROJECTS

AI Job Search & Match platform (Python | Open AI | FastAPI)   ⌂
- Developed an AI-driven job matching system using OpenAI embeddings and FAISS, improving match accuracy by 40% through vectorized resume-to-job comparison.
- **Reduced job processing time by 70%**, using multi-threading and Redis caching to eliminate redundant API calls.
- **Automated job data processing and structured storage** by designing scalable ETL pipeline with FastAPI, Redis, and PostgreSQL.

High-Performance E-Commerce Platform (Java | Spring Cloud | AWS)   ⌂
- Architected scalable microservices e-commerce platform using Spring Cloud, AWS RDS, API Gateway and MySQL, delivering end-to-end user journeys from product discovery to checkout completion.
- **Improved system throughput by 40%, handling 1,200 messages per second** with load balancing and asynchronous processing using Kafka.
- **Reduced shopping cart query latency by 87.5% (from 800ms to 100ms)** using Redis for high-concurrency caching.

Distributed KV Storage System (Java | Distributed System)   ⌂
- Achieved **14,000 QPS for mixed read/write workloads** and a **P99 latency of 200ms**, by developing a distributed Key-Value store using Java.
- **Ensured strong consistency with dynamic leader election and log replication**, by implementing Raft consensus algorithm.
- **Improve stability by reducing master-switching frequency**, using Prevote optimization technique.

TECHNICAL SKILLS

Programming Languages: Java, Python, Rust, SQL, Shell, HTML/CSS, JavaScript, TypeScript

Frameworks: Spring Boot, Spring Cloud, React.js, Next.js, Express.js, FastAPI, Redux

Databases: MySQL, PostgreSQL, Redis, MongoDB, etcd

System & Cloud: Linux, AWS, GCP, Kubernetes, Git

Others: Nginx, Kafka, Agile Development