Hao Luo

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Education

University of Michigan Ann Arbor, MI

B.S. in Computer Science & Mathematics of Finance and Risk Management *Aug. 2025 – Expected May 2029*

- **GPA:** 3.97/4.00
- **Relevant Coursework:** Data Structures and Algorithms, Web Systems, Software Engineering, Machine Learning

Experience

Ningbo Pioneer Supply Chain Co., Ltd. Jun. 2026 – Jul. 2026

Software Engineer Intern *Ningbo, China*

- Built a React/FastAPI/PostgreSQL logistics platform managing 10,000+ shipment records, centralizing order search, tracking, and delivery exception monitoring
- Replaced 5+ Excel-based workflows, reducing shipment lookup and reconciliation time by 80%+ and saving 15+ hours of manual work per week
- Optimized REST APIs and PostgreSQL queries to deliver sub-300 ms shipment searches and automate validation for duplicate or incomplete records

Avodah Jan. 2026 – Mar. 2026

AI Software Engineer Intern *Remote*

- Reduced end-to-end transcription latency from 5s to under 1s by implementing buffered streaming, asynchronous inference, and lightweight C++ preprocessing for a speech-to-text pipeline
- Deployed a fine-tuned Soniox Transformer inference pipeline on AWS ECS with health checks and autoscaling to improve reliability during production traffic spikes

Projects

C++ Thread Pool and Task Executor | *C++, CMake*

- Built a fixed-size worker pool and shared task queue using mutexes and condition variables to execute submitted tasks concurrently.
- Implemented future-based task result retrieval, exception propagation, and graceful shutdown that drains queued work and joins worker threads.
- Added tests for task completion, exception handling, and shutdown; compared sequential and pooled execution across documented workloads.

Job Application Tracker | *JavaScript, HTML/CSS*

- Built a responsive browser application to manage job applications, with editable company and role records, application dates, keyword search, and status filters.
- Implemented localStorage persistence, form validation, and JSON import/export to preserve application records across browser sessions.

Technical Skills

Languages: C++, C, Python, JavaScript, SQL, HTML/CSS
Web & Backend: React, FastAPI, REST APIs
Databases & Tools: PostgreSQL, Git, Docker, AWS ECS