

Mark Li

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EXPERIENCE

Shure Inc.

Applications Development Engineer | Niles, IL

Jul. 2025 - Present

Applications Development Engineer Intern | Niles, IL

Jun. 2024 - Mar. 2025

- Developed and maintained a large-scale Angular application used to configure enterprise audio and conferencing systems
- Integrated frontend components with GraphQL APIs and embedded firmware services to synchronize device state
- Built an internal dashboard aggregating build, test, and sprint metrics across 7+ services, improving issue visibility for 30+ engineers

Northwestern University - McCormick School of Engineering

Teaching Assistant, Programming Languages (CS321) | Evanston, IL

Sep. 2023 - Mar. 2024

- Debugged and evaluated student implementations of interpreters and language features in Racket (PLAI) for a cohort of 70+ students
- Identified errors and provided feedback through office hours and code reviews

Explorate

Full-Stack Developer | Evanston, IL

Jun. 2023 - Sep. 2023

- Built a full-stack web platform serving 40+ users using Go, PostgreSQL, and Vue.js
- Developed responsive frontend components with search and filtering functionality for 25+ structured resources
- Designed backend services with normalized database schemas and efficient query patterns

RESEARCH EXPERIENCE

Northwestern University - McCormick School of Engineering

Embodied Systems Lab

Graduate Researcher

Mar. 2024 - Jun. 2025

- Implemented a fault-tolerant proof-of-work system (Hashcash) on MSP430 microcontroller supporting execution across intermittent power loss with persistent state recovery logic to ensure correctness after reboots
- Led hands-on workshops on embedded systems, energy efficiency, and hardware/software tradeoffs

Programming Languages Lab

Research Assistant

Jun. 2022 - Mar. 2024

- Designed and evaluated contract specifications across 13+ benchmarks to analyze correctness, runtime overhead, and developer usability
- Implemented and tested probabilistic contract enforcement strategies to evaluate performance-correctness tradeoffs

PROJECTS

Verdra | Static analysis tool for cost-aware code optimization

- Built a static analysis engine to detect inefficient or unused code patterns impacting cloud and serverless costs
- Implemented AST-based rule evaluation and control-flow analysis to flag performance and billing risks

Speed Reader | Speed reading app for reading books faster

- Developed and launched a web application that presents text in rapid, word-by-word sequences to improve reading speed and focus
- Designed pacing controls and accessibility-focused UI components to support customizable reading experiences

EDUCATION

Northwestern University

Master of Science in Computer Science

Jun. 2025

Bachelor of Science in Computer Science & Bachelor of Arts in Music

Evanston, IL

SKILLS

Programming Languages: Python, C/C++, TypeScript

Frontend: React, React Native, Angular

Backend: Node.js, GraphQL, FastAPI, Rest APIs

Databases: PostgreSQL, MongoDB

Languages: English (Native), Mandarin (Professional), Spanish (Conversational)