Jianhong Li

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EDUCATION

University Of Michigan   **Ann Arbor, MI**
B.S.E. in Computer Science, **GPA: 3.8/4**   *Aug 2023 - May 2027*

- Completed: Advanced Algorithms, Data Structures & Algorithms, Computer Organization, Computer Security
- In-Progress: Operating Systems, Computer Networks, Distributed System, Compiler Construction

WORK EXPERIENCE

Amazon - Project Kuiper   **Northridge, CA**
Software Development Engineer Intern   *May 2025 - Aug 2025*

- Delivered a production-ready feature to display real-time network traffic metrics on the customer dashboard, implementing the **AWS Lambda** backend function in **Kotlin** and the frontend in **React** + **TypeScript**.
- Achieved 95% code coverage and safeguarded **CI/CD pipeline** by writing comprehensive backend (**JUnit**, **MockK**) and frontend (**Cypress**, **Playwright**) tests that validated edge cases and critical workflows.
- Automated customer onboarding using **AWS CDK** to create custom **IAM** roles, reducing manual setup time by 80%.
- Built an internal **CLI** tool in **Go** to interface with functional service APIs, streamlining virtual network setup and allowing engineers to quickly **troubleshoot** connectivity issues.
- Collaborated with **functional** teams in **Agile** sprints with iterative feature delivery, leveraging **Git**-based code reviews.

Kodely & NalaAI   **Remote**
Software Engineer   *Sept 2024 - Present*

- Led the full-stack development of NalaAI, an AI-powered classroom, delivering features including real-time avatar **lip-sync** animation, LeetCode-style **coding editor**, and intelligent **quiz generation**, — used by over 2,000 students across 200+ schools.
- Scaled and maintained Kodely's management apps using **React**, **TypeScript**, and **NestJs**, automating 45% of administrative workflows for school managers with program scheduling and operation overheads.
- Upgraded platform authentication systems by migrating from self-managed **JWT tokens** to **Firebase Auth** across all applications, improving security, scalability, and user experience.
- Designed and managed a production-scale **PostgreSQL** database supporting 200+ partner schools, 500+ instructors, and educational data including lessons, language translations, and student progress.

Hong Kong Asian Supermarket   **McAllen, TX**
Full-Stack Engineer Intern   *Jun 2024 - Aug 2024*

- Developed a full-stack advertising website using **React** and **Express**, including a 250+ product SQLite3 database, driving 1,500+ monthly visits and a 4.5% increase in sales.
- Designed the infrastructure to deploy the website with **Docker**, **Google Cloud Run**, and **Nginx** achieving 99.99% uptime.
- Optimized **SEO** through **Google Search Console**, boosting Google rankings to the top search result.

PROJECT

Super Game Engine & Shape Dungeon   [Github](#)

- Collaborated in a team of 4 to build a modular 3D game engine in modern **C++** with a data-oriented Entity Component System, featuring a real-time **OpenGL** renderer with shader pipelines, batched draw calls, and minimal CPU-GPU synchronization.
- Designed and built Shape Dungeon, an action roguelike that served as a real-world **stress test** for the engine, validating ECS scalability, rendering performance, and gameplay extensibility.
- Acted as Scrum Master, creating and assigning **Jira** tickets to drive **Agile** sprints and coordinated feature development with **Git**-based code reviews to maintain quality.
- Leveraged **CMake** for build orchestration and **Doxygen** to document the full engine interface and game class structures.

TECHNICAL SKILLS

Languages: C/C++, Go, Kotlin, Java, Python, Typescript, Javascript, SQL (Postgres), HTML/CSS
Frameworks & Library: React, NestJs, Node, Express, Tailwind, Smithy, Rive React, Cobra, Log4j
Cloud & Developer Tools: AWS (Lambda, EC2, IAM, S3, CDK, Cognito), Firebase, Google Cloud (Cloud Run, Artifact, Search Console), Docker, Kubernetes, Git, Gradle, Jira, VS code, IntelliJ, Linux, CI/CD Pipeline, CMake, Doxygen
Testing & QA: JUnit, MockK, Jacoco, Cypress, Playwright, CTest