

Alex Li — Software Engineer

✉ a336li@uwaterloo.ca • 🌐 1liale.github.io • 📄 1liale • in alexli2002

Skills

Languages: Python, TypeScript, JavaScript, Go, C++, C, Kotlin, Java, Bash, SQL

Technologies: Next.js, React Native, Svelte, Angular, GraphQL, MongoDB, Postgres, Node, Git, AWS, GCP, Docker

Certificates: AWS Certified Developer, AWS Certified Cloud Practitioner

Employment

Full Stack Developer

Toronto, ON

Reimagine Health

Sep 2024 – Present

- Engineered an end-to-end patient scheduling platform using **Next.js**, **ShadCN**, and **Tailwind** with automated SMS and email notifications sent via **OpenPhone** and **Resend** to improve patient engagement, reduce no-shows, and increase on-time payments.
- Integrated **Stripe** payment processing to streamline the appointment-to-checkout flow, generating over **\$200K** in revenue.
- Leveraged **Python** and **Typescript** to develop a suite of automated scripts to aggregate from sources (**MongoDB**, patient forms, **Stripe**) and generate valuable data insights such as invoices, graphs, and official reports.
- Developed a **WordPress**-based medical blog with **SSR** and **GraphQL**, boosting **SEO performance** with **Next SEO** to increase online visibility and attract new patients for the weight-loss and menopausal programs.

Software Developer

Toronto, ON

Nuralogix

Jan 2024 – Apr 2024

- Built a **Design System** to standardize and streamline frontend development, ensuring a consistent user experience.
- Published a **React** component library built with **Storybook** and **StyleX** as npm packages, enhancing component reusability.
- Delivered **90%** coverage in unit and E2E tests using **Vitest** and **Cypress** to ensure reliable feature releases and maintainability.

Product Developer

Grimsby, ON

Proceve

May 2023 – Sep 2023

- Collaborated with **UI/UX designers** to develop frontend features with **SvelteKit** and **Figma** for a Project Management Application.
- Launched production-ready **Docker** containers with multi-stage builds, reducing final image sizes before deployment to **AWS ECS** clusters.
- Utilized **Go's Gin framework** to develop **RESTful API endpoints** and expose services for processing project artifacts stored on **PostgreSQL**.

Software Engineer

Toronto, ON

Super.com

Sep 2022 – Dec 2022

- Developed features for an **E-commerce storefront** using the **Next.js** framework with **TypeScript**, **MUI**, and **BigCommerce API**.
- Enhanced product page load times by **15–20%** through a hybrid architecture, leveraging **REST** to generate static content and **GraphQL** to handle dynamic queries.
- Spearheaded **E2E testing automation** with **WebdriverIO**, following **TDD** practices to overhaul manual tests, reducing regression testing time by **70%** and leveraging **GraphQL** to pull staging data for realistic test cases.

Projects

DebateModAI: (GitHub, Demo)

Dec 2024 – Jan 2025

- Developed an AI-driven debate platform with **multiway conferencing**, **AI guided feedback**, and **learning content management**.
- Produced a **pipelined agent** (Deepgram STT, OpenAI LLM, GCP TTS) with **LiveKit SDK** for human-like real-time responses.
- Integrated **Firebase** with **Clerk** to create a secure authentication flow with **route validations**, **JWT verification**, and **least privilege access** database rules, resulting in a streamlined login/signup process and enhanced protection of user data.

A-Maze-ing: (GitHub, Demo)

Dec 2023 – Feb 2024

- Built a **3D maze game** where players can compete for points on a public leaderboard using **Svelte**, **SkeletonUI**, and **Go**.
- Explored maze generation using various MST algorithms and developed a bidirectional concurrent solver with **goroutine** worker pools and **channels**.
- Designed a **PostgreSQL** database schema using **Entity-Relationship Diagrams (ERDs)**, modelling essential game requirements.

Computer Networks:

May 2024 – Aug 2024

- Implemented a **RDT protocol** over **UDP**, mimicking **TCP** to ensure accurate data transmission across unreliable networks.
- Configured network topologies on a virtual **SDN** using **Mininet's Python API** and the **OpenFlow protocol**.

Education

University of Waterloo

2020 – 2025

Bachelor of Computer Science

- Coursework: Algorithms, Distributed Systems, Computer Networks, Database Systems, Applied Cryptography, Computer Security