

# DORIS LAM

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## EDUCATION

### University of Waterloo

Bachelor of Applied Science in Computer Engineering

Sep 2024 – Present

Waterloo, ON

## SKILLS

**Languages:** Python, Java, C++, C#, C, Go, JavaScript, TypeScript, Swift, Bash, SQL, HTML, CSS

**Technologies:** React, React Native, Next.js, Node.js, Express.js, FastAPI, Flask, ASP.NET, Blazor, Tailwind, Chart.js, NumPy, Pandas, OpenCV, TensorFlow, MediaPipe, GSAP, WatermelonDB, Agora SDK, Firebase Analytics

**Tools:** Git, Cursor, Xcode, Node, Docker, GCP, Firebase, Branch, MongoDB, Postman, Jest, Cypress, BigQuery

## EXPERIENCE

### Software Engineer

Sep 2025 – Present

Voxer

San Francisco, CA

- Launched a new web client platform for Voxer in **React Native**, scaling the platform to support **40+ million** users
- Built a real-time audio streaming pipeline using **WebAssembly** and **HTTP/2**, reducing audio latency to under **200ms**
- Developed an offline-first messaging system with **WatermelonDB** schema migrations and cross-device sync, ensuring **100%** local message access and delivering reliable message consistency online or offline
- Containerized production services using multi-stage **Docker** builds and Envoy dynamic proxy routing, enabling zero-downtime deployments, more reliable traffic handling, and a **50%** reduction in infrastructure costs
- Implemented **Firebase Analytics** with structured event tracking, processing **15M+** daily events piped into **GCP** for aggregation and analysis, enabling scalable product insights with **99%** event delivery accuracy
- Created automated testing in **CI/CD** using **Jest** and **Cypress** end-to-end suites, increasing test coverage to **35%** and reducing production regressions by **25%**

### Founding Engineer


May 2025 – Aug 2025

HormoneFit

Toronto, ON


- Shipped a HIPAA-compliant telehealth platform for menopause and infertility care using **React**, **Next.js**, **TypeScript**, and **Tailwind**, enabling secure patient onboarding for **1,200+** users and **15+** healthcare specialists
- Built a video consultation and real-time chat platform using **Agora SDK**, optimizing low-latency streaming with less than **100ms** latency and **99.8%** connection reliability to enable seamless virtual visits for users
- Designed and implemented **RESTful APIs** with **Express.js** and optimized **MongoDB** schemas, enabling secure, real-time access to patient records and improving data retrieval efficiency by **40%** for healthcare providers

## PROJECTS

**My AI Mentor**  | Python, FastAPI, TypeScript, Google Gemini, Monaco Editor

Nov 2025

- Developed a full-stack AI-powered code analysis and suggestion platform using **Python**, **FastAPI**, **React**, and **TypeScript**, enabling real-time code analysis, AI-driven suggestions, and execution across **9** programming languages
- Built a real-time AI code review system by integrating **Google Gemini** with **Monaco Editor** decorators and intelligent debouncing, reducing API calls by **70%** while delivering instant context-aware, educational feedback
- Implemented a secure sandboxed code execution engine in **Python** with temporary-directory isolation, subprocess timeouts, and automatic resource cleanup, safely running untrusted code with **zero system contamination**

**Snout**  | Go, Lingva Translate API

Jul 2025

- Designed and implemented a full programming language interpreter in **Go**, building a custom lexer, parser, AST evaluator, object system, and REPL to support variables, functions, arrays, hash maps, conditionals, and built-in methods
- Integrated full French-localized runtime output, integrating **Lingva Translate API** with a dictionary fallback to convert strings, booleans, null, and interpreter error messages, including parser error handling with ASCII visual feedback

**SignSpeak**  (uOttHack First Place) | React, Next.js, Node.js, TensorFlow, MediaPipe, HTML, CSS

Feb 2023

- Built a real-time sign recognition model using **TensorFlow** and **MediaPipe** to map hand landmarks and classify gestures against predefined ASL signs for an interactive learning experience that improves accessibility for hearing-impaired users
- Architected a full-stack sign language learning platform using **Next.js**, **React**, and **Node.js**, designing reusable components, API routes, and training modules to support scalable content delivery and responsive user interactions