

# DORIS LAM

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## EDUCATION

### University of Waterloo

Bachelor of Applied Science in Computer Engineering

Sep 2024 – Present

Waterloo, Ontario

- Relevant Coursework: Linear Algebra, Fundamentals of Programming, Digital Circuits & Systems, Linear Circuits
- Awards: Generation Google Scholarship, University of Waterloo President's Scholarship

## SKILLS

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

**Frameworks & Libraries:** React.js, Next.js, Node.js, Express.js, FastAPI, Flask, ASP.NET, Blazor, Tailwind CSS, Chart.js, NumPy, Pandas, OpenCV, TensorFlow, MediaPipe, GSAP, MongoDB, MariaDB

**Tools:** Git, Linux, VS Code, Xcode, Jupyter Notebook, Unity Engine, Twine, Claude Code, Cursor, STM32 Nucleo Board

## EXPERIENCE

### Founding Full-Stack Computer Engineer

HormoneFit

May 2025 – Present

Scarborough, Ontario

- Developed a full-stack, HIPAA-compliant telehealth platform for menopause care using **React**, **Next.js**, **TypeScript**, and **Tailwind**, enabling secure patient onboarding for **1,200+** users and across **15+** healthcare specialists
- Built a scalable 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 **1200+** patients monthly
- 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
- Engineered authentication and payment workflows using **JWT**, **Google OAuth**, and **Stripe**, ensuring secure access, zero breaches, and **\$50K+** monthly recurring revenue

### Firmware Developer

University of Waterloo Formula Electric

Sep 2024 – Present

Waterloo, Ontario

- Developed custom Command-Line Interface (CLI) commands in **C** to seamlessly interface with the Power Distribution Unit (PDU), allowing for the efficient retrieval and modification of inverter parameters for reliability and scalability
- Implemented and tested fault-handling protocols to address high-voltage and electromagnetic state conditions, ensuring operational safety and system reliability by preventing unsafe inverter activation and potential hazards

## PROJECTS

### **Snout** | Go, Lingva Translate API

Jul 2025

- Designed and built a French-output interpreter in **Go**, implementing a complete **lexer**, **parser**, **AST evaluator**, and **REPL** to support custom syntax for variables, functions, arrays, hashes, and conditionals
- Integrated French string translation using a hybrid of the **Lingva Translate API** and manual dictionary fallback, localizing program output (strings, errors, booleans, nulls) to enhance user immersion and language accessibility

### **CelebLearn** | React, TypeScript, FastAPI, OpenAI, Sync Labs Lip Sync API, Python

Mar 2024

- Implemented lip synchronization using **Sync Labs Lip Sync API** and **FastAPI**, powering an educational platform that delivers personalized lessons through simulated celebrity instructors
- Integrated **OpenAI** models to summarize PDFs, generate transcripts, extract key concepts and keywords, and create personalized quizzes, building an advanced AI-powered platform that evaluates and enhances user comprehension

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

Feb 2023

- Created a sign recognition system using **TensorFlow** and **MediaPipe** to analyze hand gestures and compare them to predefined signs, offering an interactive, user-friendly platform that enhances accessibility for hearing-impaired learners
- Architected a full-stack **Next.js**, **React**, and **Node.js** web application to develop a sign language learning platform

### **Comforix** (JAMHacks First Place) | Blazor, ASP.NET, C#, SQL, MariaDB, HTML, CSS

May 2022

- Built a full-stack anonymous social platform using **C#**, **ASP.NET**, and **Blazor**, enabling secure, real-time connections between users facing similar mental and physical challenges
- Engineered advanced user matching and ranking algorithms with **SQL** and **MariaDB**, dynamically filtering by issues and reputation scores to ensure meaningful interactions
- Implemented live chat and messaging pipelines via **RESTful APIs**, maintaining user anonymity and live communication