DORIS LAM

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EDUCATION

University of Waterloo   **Sep 2024 – Present**
Bachelor of Applied Science in Computer Engineering   *Waterloo, ON*
- Relevant Coursework: Fundamentals of Programming, Linear Algebra for Engineering, Discrete Mathematics and Logic 1

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*
- Built a real-time audio streaming pipeline using **WebAssembly** VOX encoding and **HTTP/2** chunked delivery, using **AudioWorklet** and **Web Workers** for parallel audio processing to achieve **less than 200ms latency**
- Developed an offline-first messaging system using **WatermelonDB** with **13 schema migrations and bidirectional sync**, ensuring **100% local message availability** and reliable cross-device state reconciliation across online and offline states
- 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%** in the **React Native** Voxer Web messaging application serving **40M+ users**

Software Engineer   **May 2025 – Aug 2025**
HormoneFit   *Toronto, ON*
- 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 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

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

CelebLearn ↗ | *React, TypeScript, FastAPI, OpenAI, Sync Labs Lip Sync API, Python*   **Mar 2024**
- Implemented lip synchronization using **Sync Labs Lip Sync API** and **FastAPI**, building a low-latency video generation pipeline for an interactive learning platform delivering personalized lessons through simulated celebrity instructors
- Integrated **OpenAI** models into a **multi-stage NLP pipeline** generating summaries, transcripts, semantic keywords, and personalized quiz modules, enabling automated comprehension scoring and structured knowledge extraction

SignSpeak ↗ **(uOttaHack 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