

Sophia Nguyen

smnguyen@uwaterloo.ca | [LinkedIn](#) | [GitHub](#) | [Devpost](#)

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL, JavaScript, Typescript, HTML/CSS, Kotlin, Swift, VHDL, GoLang, PHP
Frameworks: React, FastAPI, Jetpack Compose, Apple Core Motion, Apple Core Location, ViroReact
Developer Tools: Supabase, Firebase, Figma, Git, Docker, Google Cloud Platform, Microsoft Power Platform

EDUCATION

University of Waterloo

Bachelor of Software Engineering

Waterloo, ON

Sep 2023 – Apr 2028

EXPERIENCE

Android HMI Developer

Jan 2025 – Apr 2025

Ford Motor Company

Waterloo, ON

- Implemented **setters, getters, and callback listeners** for stepper components, supporting **100+** engineers.
- Built **2 trailing and leading icon APIs** for slider components to enhance flexibility in UI customization.
- Resolved **25 defect tickets** to align with Ford's infotainment user experience, ensuring improved functionality.
- Improved test coverage for theme features using **JUnit, Mockito, and Roboelectric**, achieving **97%** coverage.

Technical Consultant

May 2024 – Aug 2024

Creospark

Toronto, ON

- Built grant and contract management tools with **MS Power Apps and Dataverse** to streamline workflows.
- Deployed **7 customized chatbots** using Copilot Studio with custom JavaScript to handle queries.
- Onboarded team to **MS Power Platform**, boosting abilities by **30%** with documentation review and test cases.

Software Developer

Jun 2024 – Jul 2024

EverythingAI

Calgary, AB

- Developed four hands-on courses in **Python, Kotlin, Scratch, and ML** under Dr. George Danso's guidance, training over **50+** underprivileged students and achieving a **92%** course completion rate.
- Optimized the organization's website by integrating course modules with PHP, boosting course access and reducing average page load time by **35%**.

PROJECTS

RehabPal | *React Native, Firebase, Google Gemini, YOLO-v11, FastAPI, Postgres, MinIO*

- Built a **React Native** app with **Expo VisionCamera** to upload physio exercises and gauge live form analysis.
- Architected a **FastAPI** micro-service using **Python, Postgres, and MinIO S3** that runs **YOLO-v11** pose inference on every **5th** frame and stores **17-joint** key-points.
- Implemented **Gemini 2.5** to return a "form score" and coaching tips, achieving **<300 ms** feedback latency.
- Secured with **Firebase Auth** and **custom claims** to link doctors and patients; **Redux** persists tokens and API row-level ACLs safeguard HIPAA-sensitive media, sustaining **> 99%** uptime in production.

ARIA | *React Native, Go, ViroReact, SQLite, Typescript, ACRCLOUD, Expo Go*

- Developed an **AR app** that detects and displays real-time lyrics using **ACRCLOUD, React Native, and Go**.
- Architected **RESTful API** endpoints in **Go** for user auth and music management, using **SQLite** as database.
- Engineered an immersive experience using **ViroReact** to dynamically render 3D text overlays in physical space.

Steersafe | *Swift, Apple Core Motion, Apple Core Location, Tomtom API*

- Built a iOS app that rewards distraction-free driving with **Swift, Firebase, Core Motion** and **Core Location**.
- Leveraged **Apple Core Location** and **TomTom API** to get **90%** more accurate location and speed limits.
- Implemented real-time compliance monitoring using **Core Location's** speed readings and **Core Motion's** 3-axis accelerometer to detect phone pickups, boosting event detection reliability and driver safety.

BiteBudget | *React Native, Python, Supabase, Google Cloud, Docker, Hugging Face, FastAPI*

- Developed a peer accountability, money-saving app using **React Native, TypeScript, and Python**.
- Engineered an **AI-powered OCR** receipt scanner with fine-tuned **Hugging Face's Donut** model and integrating with **Expo Camera**—extracting itemized data with **94%** field-level accuracy across **1,000+** receipts.
- Built a **FastAPI-powered** backend in Python, deployed on Google Cloud Run with Docker—processing **100+** receipts per minute.