

MARTIN WONG

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WORK EXPERIENCE

Electronic Arts

May 2025 - Aug 2025

Software Engineer Intern

Vancouver, BC

- Developed an AI-powered Slack bot to assist Marketplace engineers by answering questions from game teams using internal documentation, codebase, and a custom expression language, powered by a **Retrieval-Augmented Generation (RAG)** pipeline
- Built a RAG pipeline using **PostgreSQL** + pgvector for embeddings, with LangGraph for storing Slack chat history, and FastAPI for endpoints, deployed on **AWS EKS** and powered by an internal LLM API

Rivian

Sep 2024 - Apr 2025

Software Engineer Intern

Vancouver, BC

- Lead mobile development of a new 2FA-secured driving feature on both **iOS** and **Android** platforms using **Kotlin** and **Swift**
- Developed 2FA-secured drive remote commands across all Rivian vehicles with cloud push notifications via **APNS** and **Firestore Messaging**, supported by a fallback Bluetooth path using byte format or Protobuf for offline use
- Developed a time-based one-time passcode enabling 2FA-secured driving using **HMAC encryption** for paired phone keys and cloud-retrieved codes through **GraphQL** for non-paired phone keys, covering all edge cases where push notifications fail
- Prototyped a native iOS screen recorder to automate bug reporting and manual testing, deployed to over **900 App Center users**; captured foreground app screenshots using pixel buffers, refreshed at 30-second intervals

Avena Tech Corporation

Jul 2023 - Sep 2024

Web Developer

Vancouver, BC

- Redesigned, developed and deployed full-stack websites utilizing Figma, **React**, and Tailwind optimizing load times by **75%**
- Streamlined deployment by utilizing BASH, Github actions, and **Docker Compose** to create a **CI/CD** pipeline for testing, building, and deploying Docker containers, reducing development time by 50%
- Developed and deployed a new blogging platform with containerized REST API endpoints using **Express.js**, **AWS S3**, and PostgreSQL, migrating over 60 WordPress blogs to a new, efficient platform for future blogs

Simon Fraser University iXLab

Apr 2023 - Sep 2023

Undergraduate Research Assistant

Vancouver, BC

- Enabled machine learning model validation by developing IMU sensor data simulations utilizing Python
- Collected XYZ and rotational data generated from training data generated by the T2M-GPT model in order for researchers to identify joints of motion to increase accuracy to real human motion
- Collaborated with graduate students from SFU and Dartmouth College under the supervision of Dr. Xing-Dong Yang

PROJECTS

Personalized AI Discord Bot | Python, Node.js, FastAPI, AWS EC2

- Fine-tuned Meta's Llama2 LLM on **120,000** Discord messages to create a personalized chatbot to respond in the style of the user
- Trained and deployed the fine-tuned model on Replicate accessed by a FastAPI endpoint, containerized on Docker and hosted on an **AWS EC2 instance**, and deployed on via PM2 on a personal home Ubuntu server for continuous uptime
- Wrote Python scripts to convert and pre-process Discord message data from JSON to JSONL, filtering sensitive information from **3,000** messages and ensuring seamless integration to Llama2 model and user privacy

BWS Blog Editor | React, Express.js, Node.js, PostgreSQL, Typescript

- Developed a full-stack blog editor which allows users to create, update, and delete blogs to migrate Wordpress blogs
- Implemented robust client and server-sided form validation using Zod and react-hook-form with email notifications to validate if an email was sent, validating every step of blog creation

Command-line Document Handler | Java

- Developed a document handler GUI simulated in a command-line interface using Java, featuring document creation, opening, closing, resizing, reading, and writing
- Designed a UML diagram showcasing 6 key classes, abstract classes, inheritance, and polymorphism reducing development time with reduced complexity

EDUCATION

Simon Fraser University

Expected Graduation May 2027

Bachelor of Science, Computer Science

Burnaby, BC

Courses: Data Structures and Algorithms, Database Systems, Software Engineering, Computer Systems, Web Development

TECHNICAL SKILLS

Languages: Swift, Kotlin, Java, JavaScript, TypeScript, Python C, C++, Go, x86, HTML, CSS, SQL, BASH

Frameworks/Libraries: React, SwiftUI, Jetpack Compose, Next.js, Express.js, Node.js, Mongoose, GraphQL, Tailwind, Jest

Developer Tools/Technologies: Git, Docker, AWS, Linux, MSSQL, PostgreSQL, NGINX, Postman