MARTIN WONG

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EDUCATION

Simon Fraser University

May 2022 - May 2027

Bachelor of Science, Computing Science

Burnaby, BC

WORK EXPERIENCE

Software Developer Intern

Sep 2024 - Apr 2026

Rivian

Vancouver, BC

Software Developer Intern

Jul 2023 - Present

Avena Tech Corporation

Vancouver, BC

- Redesigned, developed and deployed full-stack websites utilizing Figma, React, and Tailwind optimizing load times by 75%
- Streamlined deployment by utilizing BASH 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
- Coordinated 20 meetings to discuss requirements and design changes with clients, outsourced developers, UX/UI designers, and SEO experts to optimize website ranking and user engagement

Undergraduate Research Assistant

Apr 2023 - Sep 2023

Simon Fraser University | SFU iXLab under Dr. Xing-Dong Yang

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, NodeJS, FastAPI, AWS EC2

May 2024

- 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 preprocess Discord message data from JSON to JSONL, filtering sensitive information from **3,000** messages and ensuring seamless integration to Llama2 model and user privacy

Kanban Planner | MongoDB, ExpressJS, ReactJS, NodeJS

Jan 2023

- Developed a full-stack Kanban Planner app which allows users to manage their tasks in an organized and efficient way
- Implemented robust client and server-side form validation using AJV, a JSON schema validator library, to ensure data integrity and maintain high standards of data purity in the web application
- Used Material UI and react-beautiful-dnd for CRUD operations, allowing users to create, move, delete tasks

Command-line Document Handler | Java

Apr 2022

- 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

TECHNICAL SKILLS

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

Frameworks/Libraries: React, ReactNative, NextJS, Express.js, NodeJS, Mongoose, GraphQL, Tailwind, Jest **Developer Tools/Technologies**: Git, Docker, AWS (S3, EC2, ECS, ECR), Linux, MSSQL, PostgreSQL, NGINX, Postman

VOLUNTEERING

Microsoft TEALS | Teaching Assistant

May 2024 - Present

- * Led Python programming sessions for grade 8-10 students, encouraging enthusiasm for coding
- * Evaluated student progress through grading assignments and providing positive constructive feedback to help students grow
- * Established a positive learning environment that supports diversity, inclusion, ensuring all students feel valued and supported