Danial Valentino Jaber

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Education

University of British Columbia — Vancouver, Canada
BASc. in Computer Engineering, Minor in Commerce — *Exp. Grad Date: May 2026*

Technical Experience

Intel Corporation — Vancouver, Canada
Software Engineering Intern — *May 2022 – Dec 2022, Full-time*

- Developed **C** framework for analyzing code execution on containerized **Simics** simulation interface, reducing model build time by **70%** by identifying bloat and improving quality of all committed code
- Designed a project security **CI** workflow that detects proprietary access violations and resolves dependencies, which was adopted by over **40** other engineering teams across Intel globally
- Built out infrastructure model for **PiL** virtual platform, providing internal chip developers with a command-line toolkit for pre-silicon and post-silicon software development
- Contributed to the creation of loosely-timed **RISC-V** software models of hardware IP, by porting over **ARM** infrastructure and reworking **Python** boot scripts for changing customer objectives and optimal execution

UBC Supermileage *(link)* — Vancouver, Canada
Team Captain — *Sept 2021 – Present*

- Leading a competition-winning team of **60** driven students developing software systems for **3** manned ultra-efficient vehicles, comprising a gasoline prototype, a fuel-cell electric, and a battery electric vehicle
- Innovated development and implementation of an **AWS**-integrated telemetry software system in **C++**, communicating a diverse range of live vehicle data, through a neat motorsport-like Grafana UI
- Integrated firmware in **C++** for a purpose-built brushless DC motor controller, regulating the operation of a manned Urban concept electric vehicle, with precise motor control and closed-loop position detection

Projects

TextRx Medication Tracker *(link)*

- Created a practical medication and reminder tool, through a trained **PyTorch** model for drug detection and an encrypted security layer for storing sensitive user information with **MongoDB**, built with **JavaScript**

Recipe Roulette *(link)*

- Developed an **Azure**-hosted **Android** cooking service, promoting healthy meal planning and food-sharing initiatives, implementing the MVC design pattern through a **Java** front-end and **Node.js** back-end

Operating System Design *(link)*

- Implemented pocket-sized **MIPS** operating system in **C** with use of **GDB**, including file and process system calls and a virtual memory system, enforced with synchronization primitives and protection mechanisms

Shell Program with Concurrency *(link)*

- Designed a **Linux**-like command-line shell in **C** able to manipulate jobs and processes, with freedom to transfer concurrent processes between foreground and background, and complete signal/error handling

Technical Skills

Languages: Java, Python, C, C++, JavaScript, SQL, RISC Assembly, SystemVerilog, HTML, CSS

Tools and Technologies: Git, GitHub, Linux, Docker, Kubernetes, AWS, Azure, PyTorch, TensorFlow, MongoDB

Methodologies and Collaboration: Agile, Scrum, Kanban, UML, Jira, Confluence, CI/CD Tools, LaTeX, REST

Concepts: Data Structures and Algorithms, OOP, Software Engineering, Web Development, Machine Learning, Neural Network Design, Database Design, Debugging, Cloud Computing, Artificial Intelligence

Awards & Achievements

Intel Foundry Services Organizational Quarterly Recognition (*link*) — Aug 2022
UBC Engineering Dean's Honour Award — 2020 – 2024