

VINCE ONG

📞 604-833-8384

✉️ vinceong2020@gmail.com

🌐 [LinkedIn](#)

🐙 [GitHub](#)

Education

Simon Fraser University

Sep. 2025 – Present

Bachelor of Applied Science in Mechatronic Systems Engineering – Cumulative GPA: 3.7/4.3

Burnaby, B.C.

- International Baccalaureate Diploma | *July 2025*
- BC Achievement Scholarship Recipient | *October 2025*

Technical Skills

Programming Languages: C++, Python

Software & Tools: LTspice, EAGLE, Git, Github, Arduino IDE, Supabase, Vercel, Experimental Data Analysis

Hardware: Soldering, Function Generators, Oscilloscopes, DMM, 3D Printing, Microcontrollers, PCB Assembly

Projects

Automatic Spice Dispenser | C++, Arduino IDE

Sept 2025 – Dec 2025

- Engineered an embedded dispensing system driven by stepper motors, achieving sub-degree rotational precision through loop calibration routines programmed in C++.
- Programmed low-level C++ firmware for microcontroller-based stepper motor control, performing I/O mapping and static memory allocation to operate within the strict resource constraints of embedded hardware.
- Executed CAD-driven prototyping to design and 3D print custom mechanical assemblies, including dispensing mechanisms and wire management structures, accelerating design-to-prototype cycle time across multiple revisions.
- Implemented GANTT-based project management to coordinate cross-functional deliverables across firmware, mechanical, and integration workstreams, driving on-time delivery of all milestones within a 3-month development cycle.

Engram | TypeScript, Python

April 2026 – Present

- Co-founded and deployed Engram, a B2B AI SaaS leveraging LLM-powered persistent memory to unify workflow data across various enterprise systems, accelerating employee onboarding and centralizing organizational knowledge retrieval.
- Engineered a semantic data pipeline using Supabase and backboard.io to construct queryable knowledge graphs from different data sources, supporting both text and voice-based querying across integrated workspaces.
- Architected a RAG-driven search interface in TypeScript, delivering context-aware LLM responses across multi-source knowledge bases, streamlining complex dataset navigation into a responsive, user-centric UI.

Digital Dice | Boolean Logic, PCB Assembly, SMD Soldering

Sept 2025 – Dec 2025

- Assembled a mixed-technology PCB integrating both SMD and through-hole components, developing precision hand-soldering techniques under lab-grade inspection standards.
- Implemented combinational logic circuits using Boolean algebra and truth tables to decode binary states into 7-segment LED output patterns representing all 6 die faces.
- Validated circuit functionality using bench-top instrumentation including oscilloscopes and DMMs to verify signal integrity, voltage levels, and correct logic gate switching behavior across the full output range.

Experience

MECH (Medical Envoys for Community Health)

August 2023 – July 2025

Finance & Development Lead

Langley, B.C.

- Spearheaded end-to-end financial operations across multiple fundraising campaigns, including budget allocation, operating margin analysis, and stakeholder reporting, ensuring full fiscal accountability.
- Architected and maintained a custom expenditure tracking database, enforcing data standards that reduced reporting discrepancies and improved financial visibility for the entire team.
- Drove revenue growth through coordinated digital and door-to-door marketing campaigns, scaling organizational net assets by over 250% across 2-years.

Pacific National Exhibition

Aug 2025 – Sept 2025

Games Attendant

Vancouver, B.C.

- Consistently exceeded daily revenue targets through high-volume customer engagement, leveraging real-time sales tactics to maximize per-booth performance across a high-traffic 3-week event.
- Maintained an inventory tracking system for prizes and stock, ensuring 100% count accuracy and enabling zero discrepancies at end-of-day audits.