

Education

Bachelor of Science in Computer Science – University of Calgary

May 2018 – May 2022

GPA: 3.49/4.00

Work Experience

Firmware Engineer – Simply Embedded

Jan 2021 – May 2024

- **GUI Development:** Rendered MQTT messages into interfaces using LVGL widgets, sending responses to the cloud.
- **Network Connectivity:** Addressed challenges with diverse cellular operators, especially network time and instability issues in the UK.
- **Testing Automation:** Created a self-testing system for PCBA peripherals, automating device commissioning and ensuring readiness for shipment.
- **Versatile Driver Development:** Developed and maintained device drivers for key peripherals including audio, display, touch, modem, and secure elements, ensuring robust and efficient hardware-software integration.
- **Intern Mentorship:** Led the interview and hiring process for engineering interns, mentored 5 interns during their 8-month internships, and managed tasks for interns using Jira.
- **Project Management:** Led a team of two university interns to successfully integrate an ST RFID reader evaluation board with an in-house development board, utilizing the onboard cellular modem for cloud data offloading.
- **Firmware Debugging:** Implemented debug control with Jlink and GDB server, successfully flashing and debugging firmware on STM32U5 PCBA.
- **Advanced Debugging Techniques:** Utilized logic analyzers, oscilloscopes, and emulation tools like QEMU to debug and validate driver performance under various conditions.
- **Trade Show Sales:** Generated leads in high-traffic environments, engaged potential customers in technical and high-level conversations, gathered contact information, and followed up on leads.

Retail Sales Staff – Camper's Village

May 2014 – July 2021

- **Customer Assistance:** Assisted customers in purchasing outdoor hard goods, from personalized multi-hour outfitting to quick assistance finding items.
- **Product Knowledge:** Utilized product information provided by brands and representatives to offer detail-oriented assistance.
- **Sales Goals:** Leveraged personal passion for hiking to develop strong customer relationships, consistently surpassing sales goals.

Other Experience

President – Computer Science Undergraduate Society

Sept 2020 – Feb 2021

- **Led Calgary Hacks 2021:** Coordinated a remote-first event with over 700 participants, awarding \$15,000 in prize money.
- **Team Leadership:** Directed a team of 20 executives and volunteers to ensure smooth event operations.
- **Stakeholder Communication:** Facilitated regular meetings with the Faculty of Science and the Department of Computer Science.
- **Sponsorship Management:** Developed sponsorship packages, managed sales from initial meetings to final payments, and maintained a CRM.

Project in Theoretical Computer Science – NSERC Undergraduate Student Research Award

Sept 2021 – Apr 2022

- **Supervised Research:** Collaborated with Dr. Michael J. Jacobson on computational number theory, focusing on the statistical properties of Aliquot sequences.
- **High-Performance Computing:** Utilized 800GB of RAM and 80 threads on the university's bigmem research cluster to compute Aliquot sequence properties up to 240.
- **Literature Synthesis:** Developed a deep understanding of existing statistical results on Aliquot sequences to extend and generalize their properties.

Skills

Programming Languages	Skills	Tools
C, C++, Makefile, CMake	Firmware Development, Hardware Debugging	Jlink, GDB, STM32Cube, MCUXpresso
Python, Bash	Linux Programming, Cloud computing	Logic Analyzers, Oscilloscopes, QEMU
Java, Javascript, HTML, CSS	Web development, Public speaking	Git, Jenkins, GitHub