

Profile

Software Engineer with 3 years of experience developing production-grade C/C++ applications for both embedded and Linux environments. Demonstrated success in leading teams, mentoring interns, and managing complex software projects from design to deployment. Skilled in full software development lifecycle, agile methodologies, and cross-functional collaboration. *Based in Calgary, Canada, and seeking opportunities locally, nationally, and internationally.*

Education

Bachelor of Science in Computer Science – University of Calgary

May 2018 – May 2022

President of the Computer Science Undergraduate Society, NSERC Undergraduate Student Research Award.

GPA: 3.49/4.00

Work Experience

Software Engineer – Simply Embedded

Jan 2021 – May 2024

- **Software Development:** Engineered C/C++ applications for Linux and embedded environments. Utilized Git for version control and managed CI/CD pipelines with Jenkins, ensuring consistent, automated deployment processes.
- **Quality Assurance:** Conducted unit and integration testing, collaborating closely with QA to ensure reliable and high-quality software releases. Participated in debugging sessions to address critical issues and improve overall software reliability.
- **Peripheral Driver Development:** Developed and maintained drivers for various hardware interfaces (audio, display, touch, modem, secure elements) within Linux and real-time systems, ensuring smooth hardware-software integration.
- **Advanced Debugging Techniques:** Used logic analyzers, oscilloscopes, and QEMU to debug complex issues, improving the stability and efficiency of the system by identifying and resolving hardware-software interaction problems.
- **Mentorship and Hiring:** Led the interview and selection process for engineering interns. Provided technical mentorship and guidance in software development, helping interns quickly integrate into the team and contribute effectively to ongoing projects.
- **Network Programming:** Managed secure communications using the TCP/IP stack and security protocols, handling modem integration and SIM card provisioning to ensure stable network connectivity across various environments.
- **Client Engagement:** Engaged with clients during trade shows and technical discussions, translating their requirements into clear technical objectives. Worked closely with the team to meet project goals aligned with client expectations.

Research in Theoretical Computer Science – NSERC Research Award

Sept 2021 – Apr 2022

- **Mathematical Research:** Conducted computational number theory research, focusing on Aliquot sequences under Dr. Michael J. Jacobson. Applied parallel computing techniques using C and OpenMP.
- **High-Performance Computing:** Developed scalable algorithms optimized for an 800GB RAM, 80-thread research cluster to enhance the performance of computational methods.
- **Documentation:** Authored comprehensive undergraduate thesis and produced detailed Doxygen-based documentation for ongoing research.

Retail Sales Staff – Camper's Village

May 2014 – July 2021

- **High-Service Sales:** Engaged with customers to identify their outdoor product needs, delivering exceptional service and product recommendations in a high-volume retail environment.

Other Experience

President – Computer Science Undergraduate Society

Sept 2020 – Feb 2021

- **Organized CalgaryHacks 2021:** Led a 20-member volunteer team, coordinating over 700 participants and distributing \$15,000 in prizes to foster growth in Calgary's tech community.
- **Stakeholder Communication:** Managed sponsor relations and led regular meetings with the Computer Science Department to ensure smooth club operations and event execution.
- **COVID-19 Adaptation:** Transitioned CalgaryHacks to a fully remote format, leveraging Discord and Zoom for event facilitation and judging.

	Skills	Tools / Libraries
Programming	C, C++, Python, Java, JavaScript, Bash	Git, Jenkins, GitHub, Azure, Docker
Software Dev	Agile Methodologies, CI/CD, Unit Testing	Makefile, CMake, GDB, Wireshark
Networking	TCP/IP, Security Protocols	Wireshark, OpenSSL
Collaboration	Team Leadership, Mentoring, Client Relations	Jira, Confluence, Slack