

WORK EXPERIENCE

Bank of Montreal (BMO)

Junior Software Developer

Toronto, Canada

May 2024 - August 2024

- Designed and implemented an online platform allowing users to deploy and manage Kafka topics, access controls, and data schemas, removing the need for a CLI, utilizing Angular, NodeJS, Symfony, and Drupal
- Created and optimized Python scripts to proactively monitor Apache Kafka connectors, automating real-time alerts and enhancing operational efficiency across the team management
- Played a pivotal role in migrating BMO's internal Kafka streams from EC2 to ECS, resulting in around a 20% improvement in system performance and a reduction in operational costs.

Expert Geophysics Limited (EGL)

Engineering Intern

Aurora, Canada

May 2023 - August 2023

- Developed and tested software in C for airborne magnetic field monitoring systems, ensuring optimal performance through meticulous design and testing procedures in critical operations
- Conducted tests on components like the console, current generator, and power supply, ensuring seamless functionality and reliability
- Analyzed and enhanced the structural integrity of magnetometer mounting components, implementing 3D-printed designs that increased the safety factor by 33

PROJECTS

BMO Innov8 Hackathon — Angular, Node.js, Apache Kafka, Figma

- **Won 1st place** at the prestigious BMO Innov8 Hackathon, a competitive event with **over 300 participants** and **30 teams**
- Developed an innovative solution for a financial technology challenge, showcasing advanced problem-solving and technical skills

EchoBeat — Angular, Node.js, Express.js, Spotify API, REST, Google Cloud Platform

- Developed a music analytics web application that integrates with Spotify's API, allowing users to analyze their listening habits
- Implemented secure authentication flows and data fetching using REST APIs to ensure a seamless user experience

Digital FPGA Game Development — Assembly (Nios II), C, DE1-SoC Board, FPGA Development

- Leveraged digital systems methodologies to engineer a comprehensive Alien Invaders game on the DE1-SoC board using Nios II and C, seamlessly integrating block memories, VGA display capabilities and audio functionalities

EDUCATION

University of Toronto - St. George

Candidate for Bachelor of Applied Science in Computer Engineering

September 2022 - June 2026

- Data Structures and Algorithms, Operating Systems, Computer Networks, Programming Fundamentals (C++), Software Communication and Design (C++)

SKILLS AND CERTIFICATIONS

- **Certifications** - Amazon Web Services Certified Cloud Practitioner - October 2021 - September 2027
- **Programming Languages** - Python, Java, C++, C, JavaScript, TypeScript, HTML, CSS, Assembly (Nios II), SQL, Symfony, MATLAB, XML
- **Technologies** - Apache Kafka, AWS, Angular, Docker, Drupal, Google Cloud Platform, Matplotlib, NodeJS, NumPy, Postman, PRAW, Selenium, Verilog, XML
- **Competencies** - Cloud Computing, Data Structures and Algorithms, Object-Oriented Programming