Michael Khoury *Computer Engineering Student*

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EDUCATION

Bachelor of Engineering (Co-op) - Computer Engineering, Class of 2027, St. John's, Canada
Memorial University of Newfoundland
Fourth Year, Academic Term 6, GPA: 3.88 / 4.00 (Cumulative), 4.00 / 4.00 (Current)

SKILLS

Languages: Python, C++, C, C#, VHDL, JavaScript, Java, HTML, CSS, SQL, YAML, UML, JSON, XML, Bash, Dafny, Assembly, MATLAB

Frameworks: React.js, Node.js, Express.js, .NET, Unity, PyTorch, NumPy, Pandas, Matplotlib, openpyxl, JSX, OpenCV, Spring Boot

Tools: Git/GitHub, Jira/Bitbucket, Notion, Confluence, VS Code, Google CoLab, Quartus, MongoDB, Conda, Zapier, Shell/SSH, WinSCP, PuTTY, Postman,IntelliJ IDEA, Apache Spark, AWS EC2, PostgreSQL, Cmake, Make, Simulink, DVC, MLflow, Oscilloscope

Technologies: REST API, Embedded/Real-time Systems, Signal/Image Processing, AI/ML, Linux, SDR, GNU Radio, OOP, DSA, Markdown

WORK EXPERIENCE

Systems Engineering Student (Co-op), *C-CORE (Research and Development)* May 2025 – Aug 2025 | St. John's, Canada
- Developed C++ and Python signal processing algorithms in Linux for SDR radar system R&D efforts, improving real-time detection by 12%.
- Implemented a real-time filtering C++ block within GNU Radio, achieving stable self-interference cancellation on embedded SDR hardware.
- Analyzed algorithm complexity to benchmark CPU and GPU core configurations required for real-time deployment with a sub-10 ms latency.
- Optimized embedded radar system performance by tuning C++ modules and SDR parameters, increasing range and reducing noise by 20%.
- Built YOLOv8 ML models in Python/PyTorch with custom data preprocessing scripts, delivering 85% accurate automated target detection

Supplemental Instruction (SI) Leader - ECE (Co-op), Sep 2024 – Dec 2024 | St. John's, Canada
Faculty of Engineering and Applied Science, Memorial University of Newfoundland
- Led weekly SI sessions for 40+ engineering students in C++, Python, digital logic, circuits and semiconductor physics, boosting grades by 25%.
- Built a Python-based Excel attendance tracker using Pandas and openpyxl, automating administrative tasks and saving 5 hours weekly.

Machine Learning Software Developer, *Visual and Analytic Computing Lab* Jun 2024 – Aug 2024 | St. John's, Canada (Hybrid)
- Trained ML models in Python/PyTorch for medical image recognition, running Bash scripts on Linux (via PuTTY), improving accuracy by 15%.
- Collaborated in a team of 4 consisting of senior developers and another student to improve ML models, using Git/GitHub, WinSCP, and version control best practices to streamline development and maintain reproducibility.
- Independently developed a Python script to automate experiment tracking with MLflow, DVC and Bash, improving efficiency by 30%.

AI Automation Developer (Co-op), *NL Eats Community Outreach Inc.* Jan 2024 – Apr 2024 | St. John's, Canada (Remote)
- Built AI-driven workflow automations with the OpenAI API and Zapier improving efficiency across 5+ projects.

Engineering Co-op Student (Data Analysis), *Vale Canada Ltd.* May 2023 – Aug 2023 | Long Harbour, Canada
- Analyzed equipment data and maintenance schedules with Excel/SAP to support preventative maintenance plans, improving uptime by 15%.

PROJECTS

Bank Transaction Monitoring System, *Personal Project* Jul 2025 – Present
- Built a Bank Transaction Monitoring System with Java, Spring Boot, PostgreSQL, and Maven, creating RESTful APIs.
- Implemented real-time fraud detection with Apache Spark, deployed the system on AWS EC2, and tested API endpoints using Postman.

Full-Stack Portfolio Website, *Personal Project* May 2025 – Jun 2025
- Built a responsive portfolio site in React.js/CSS with a Node.js/Express.js REST API backend and MongoDB, featuring secure form handling

Unity Tower Defense Game (ZSM Defense), *Software Design Course* Jan 2025 – Apr 2025
- Designed a 2D tower defense game in Unity (C#) with unique tower abilities and enemy behaviors; recognized as a top-2 project in the course.

Car UI and Proximity Sensor, *Introduction to Python Programming Course* Sep 2022 – Dec 2022
- Used Python and Arduino for designing a UI mimicking modern car features with an advanced built-in proximity sensor system.

AWARDS

Faculty of Engineering Dean's List 24/25, *Memorial University of Newfoundland* 2025

IUGS Entrance Scholarship 22/23, *Memorial University of Newfoundland* 2022

Class of 2021 High School Valedictorian, *The English Modern School, Doha* 2021