

Henri Cerio-Cain

Halifax, NS | P: (437) 431-9078 | E: henriceriocain@dal.ca | henriceriocain.ca | [LinkedIn](#) | [GitHub](#)

EDUCATION

Dalhousie University

Halifax, NS

Bachelor of Computer Science

Expected Sep 2026

Relevant Coursework: Data Structures, Software Development, Operating Systems and Algorithms.

CO-OP STATUS

- Completed 5 of 8 semesters as of summer 2025.
- Seeking a 4-to-8-month work term in summer and winter 2025.

SKILLS

- Advanced in MySQL, JavaScript, HTML, CSS, Java, C, Python and Git.

UNIVERSITY PROJECTS

HenriAI Chatbot (In Progress)

Personal Project

Jun 2024

- Developing and fine-tuning a custom conversational AI model using GPT-Neo 1.3B, training on a personalized dataset created to simulate real conversations based on my communication style.
- Optimized training efficiency by implementing mixed precision training and gradient accumulation, reducing GPU memory usage by 40% and enabling batch sizes up to 32.
- Implemented advanced learning rate scheduling using ReduceLROnPlateau, reducing training time by 25%.

Binary Translator

Systems Programming, Dalhousie University

Apr 2024

- Developed a binary translator in C to convert a 16-bit RISC-based instruction set into x86-64 assembly code.
- Implemented bitwise operations and optimized control structures to enhance translation accuracy and efficiency.
- Reduced translation runtime by 25% with optimized array handling and conditional logic.

Social Network Friend Recommender: Code Extension, Refactoring, and Unit Testing

Software Development, Dalhousie University

Mar 2024

- Refactored and extended a social network friend recommender system, implementing new features and improving code structure based on SOLID principles.
- Wrote comprehensive JUnit5 tests, increasing code coverage to 95%, and ensured robust handling of user input errors.

Disease Simulator

Data Structures and Algorithms, Dalhousie University

Feb 2024

- Designed and built a disease spread simulation in Java, incorporating object-oriented principles such as inheritance, interfaces, and ADTs to model complex real-world scenarios.
- Optimized simulation performance, reducing runtime by 20% through efficient use of data structures and algorithms.

Flight Booking Website

Web Development, Dalhousie University

Dec 2022

- Developed a responsive flight booking website using HTML, CSS, and JavaScript, ensuring cross-browser compatibility and a seamless user experience.
- Implemented user-centred design principles, improving accessibility for users across various devices.
- Optimized page load times by 15% through asynchronous JavaScript and CSS minification.

ACTIVITIES

Dalhousie Computer Science Society

Member

Halifax, NS

Sep 2024 – Present

ADDITIONAL

Languages:

- Fluent in French and English.
- Elementary Proficiency in Cebuano.

Certifications & Training:

- New-Brunswick Certificate of Oral Proficiency French as a Second Language: Advanced.
- Passed LinkedIn Skill Assessments in Java, Front-End Development, CSS, JavaScript and HTML.