

MICHAEL CRONIN

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EDUCATION

Queen's University, Faculty of Engineering; Applied Mathematics and Computer Engineering Class of 2026

- Bachelor of Applied Science, Engineering – 4.18/4.30 GPA
- Relevant Coursework: Data Structures, Algorithms, Databases, Object-Oriented Programming, Software Development

WORK EXPERIENCE

Data Analytics Intern, Celestica 2024

- Led an overhaul of the division's database schema, resulting in a 70% reduction in refresh times
- Implemented numerous scripts using Javascript and Google APIs, automating and streamlining the dataflow, reducing data redundancies and inefficiencies of manual inputs
- Managed and transformed data to create key strategic and financial insights through automated PowerBI reports

Undergraduate Researcher, Queen's University, Mathematics and Statistics Department 2023

- Developed theory using advanced Lyapunov stability for event-triggered control systems, primarily focusing on input-to-state stability on time scales in terms of two measures
- Selected to receive an NSERC Undergraduate Research Award, valued at \$6000+, to support the research

Teaching Assistant, Queen's University, APSC 174 Linear Algebra 2023

- Prepared for and taught weekly live tutorials, aiding with understanding and answering any general questions
- Worked with the teaching team to optimize the content delivery and assisted with grading midterms and finals

PERSONAL PROJECTS & EXTRACURRICULARS

Crossword Clue Solver Chrome Extension 2024

- Built and trained a recurrent neural network to predict crossword answers given clues using Python
- Used Tensorflow to transfer learning from RoBERTa, retraining with over 750 000 clue-answer pairs scraped from the web
- Developed a Chrome extension using HTML, CSS, and Javascript, and a backend server using Flask to run inferences on the model, integrating the extension with the New York Times crossword to ensure easy use

HomeBase Social Media App Project 2023

- Developed a housing social media app to connect landlords with possible tenants using C++ and Qt Creator, supporting features such as a live chat, house postings, and an interactive map, storing all data in a MySQL database
- Created UML Class, Sequence, State Chart, and Use Case diagrams to describe the system's software architecture

Director of Design, Queen's Engineering Society 2022 - 2023

- Oversaw 20 unique design teams ratified under the Engineering Society, each with up to 200 members
- Worked on a 17-person team to run all operations of the \$2.4 million-worth Engineering Society

Head of Orientation Team Implementing Safety (OTIS), Queen's Engineering Society 2023

- Led a team of 80 engineers to run and oversee logistics of the Queen's Engineering Orientation Week, including set-up, takedown, and safety, culminating in a logistically flawless week of events
- Planned and ran a week of training sessions to prepare the team to run the week and answer any questions

AWARDS & SCHOLARSHIPS

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| • Nellie & Ralph Jeffery Award in Maths [\$23,400] (2024) | • W.P. Wilgar Memorial Scholarship [\$1,000] (2022) |
| • Science '22 Scholarship [\$1,900] (2024) | • Annie Bentley Lillie Prize in First Year Calculus (2022) |
| • Undergraduate Research Award [\$6,000] (2023) | • The Science Jacket Award (2022) |
| • First Place – Queen's Engineering Competition (2023) | • Opportunities Entrance Scholarship [\$5,750] (2021) |
| • Jacob Malomet Memorial Award [\$600] (2022) | • <i>See LinkedIn for further awards and descriptions</i> |

INTERESTS

- **Eager Volunteer** – Held 5 volunteer positions with Queen's EngSoc, including running Orientation Week, overseeing all design teams, and more; selected as the student who has contributed to the most extra-curricular activity in my year
- **Outdoors Enthusiast** – Led multiple multi-day canoe trips, completed a 26-day white-water canoe trip, paddled > 800km, certified ORCKA canoe instructor; avid downhill skier with instructor/racing experience; experienced tennis instructor
- **Passionate Volleyball Player** – Co-captain of Leaside, a top 8 team in Canada, continue to casually play 3+ times a week

KEY SKILLS

Python – Java – C – C++ – JavaScript – MATLAB – SQL – Web Development – Assembly – Excel – PowerBI
