

Ben Graham

b.graham@queensu.ca | bengraham.ca | linkedin.com/in/ben-n-graham | +1 (587) 969 4566

Summary of Strengths

- Excellent **technical writing** skills developed through past employment, curricular, and extracurricular projects.
- Quick and **self-motivated** learning style due to my curious nature.
- Strong **time management** skills I developed because of my busy schedule of academics and extra curricular activities.
- Skilled in **Java**, Python (NumPy, Pandas, Matplotlib, Scikit-learn), MatLab, C, C++, and LaTeX programming languages.
- Experience using **git** for version control, along with Jira and Confluence case tools for collaboration.

Education

Queen's University

Kingston, Ontario

Bachelor of Applied Science in Engineering Candidate, 2024

- **3.94/4.3** GPA (Cumulative)
- **Dean's Scholar** for achieving an GPA above 3.5 with a full course load (2019-2020, 2020-2021, 2021-2022 academic years).
- Fifth year student in the **Engineering Physics** program, sub-specialty in **Computer Engineering**.
- Course list and notable projects available at bengraham.ca/academics.

Employment Experience

EMC/ENV Verification and Test Automation Co-op, Ericsson Canada

Ottawa, Ontario

May 2022 – August 2023

- Conducted **EMC and Environmental** product verification testing on outdoor and indoor radio products.
 - Hands on experience with Keysight, NI, R&S instruments, including PXI SA/SG, ENA, SMW, FSW.
- Worked in an **Agile** development environment with global teams on an internal test **automation software**.
 - Led user acceptance testing for environmental test cases.
 - Provided support to Environmental, EMC, and RPV verification engineers using the automation software.
 - Worked with verification engineers to debug issues and implement new features.

Faculty of Engineering and Applied Science, Queen's University

Kingston, Ontario

May 2021 – August 2021

- Worked as a **Course Development Lead** redeveloping aspects of three courses in the Faculty of Engineering and Applied Science.
- Developed, tested, and implemented a new laboratory experiment for APSC 100M2 (Introduction to Experimentation) in which students analyze the motion of a spring mass system using an Arduino.
- Developed an open-ended engineering design project for APSC 200 (Engineering Design and Practice II).
- Created a comprehensive, interactive **Python** Jupyter Notebook summarizing the content ENPH 252 (Management of Experimental Data) to facilitate the removal of the course in future years. The notebook covered topics including error estimation and propagation, along with analysis, graphing, and curve fitting of experimental data.

Projects, Design Teams, and Extracurricular Interests

8-bit Breadboard Computer

June 2021 – Present

- Built a **programmable, 8-bit processor** following a Simple-As-Possible architecture primarily using 7400-series integrated circuits. See more at: bengraham.ca/projects.
- Designed a **CLI in C++** to automate the manual assembly language to machine code conversion process. This portion of the project highlights my **object-oriented programming** skills. Development ongoing. See more at: github.com/bng919/SAPCompiler.

QMIND (Queen's Machine Intelligence and Neuroevolutionary Design Team)

Kingston, Ontario

September 2020 – May 2022

- Worked on two **client-facing** AI/ML projects as a general team member during the 2020-2021 academic year and as a **project manager** during the 2021-2022 academic year.
- Emergency Department Wait Time Estimation (2021-2022)
 - As project manager, I **led a team** of 3 students to develop a prediction model for emergency department wait times in hospitals in Ontario, a project in conjunction with the KFL&A Public Health Informatics team.
- Hospital Scheduling (2020-2021)
 - Worked with a team of other students to implement a decision tree algorithm to extract trends from historic hospital staff schedules for a client company.
 - Model performed with an **81% accuracy** rate on testing data.
 - Presented project and results at CUCAI 2021 (Canadian Undergraduate Conference on Artificial Intelligence). **Presentation proceedings** can be found on page 48 of the [CUCAI Proceedings 2021](#).