Patrick **Maloney**

pbmaloney@uwaterloo.ca
patrickmaloney.me

linkedin.com/in/patrickbmaloney
github.com/patrickbmaloney

SKILLS

Languages: JavaScript, C++, Python, SQL, Java, HTML, Sass, C#, C, MATLAB
Frameworks/Tools: React, Node.js, Django, Vue.js, Android Studio, VS Code, MySQL, MongoDB, Linux, Git, SonarQube

PROFESSIONAL EXPERIENCE

Full Stack Developer | IBM
Ottawa, ON | May 2021 – Present

- Developed a SIEM web app using technologies including **React, JS**, **Sass**, **Node.js**, **SQLite**, and **TingoDB**
- Created custom **React** components and RESTful APIs in **Node.js** to support the searching, filtering, and visualization of large amounts of cybersecurity offence and rule data
- Independently designed and implemented a new feature allowing clients to export a zip file with an interactive **HTML** report displaying visualizations of their SIEM data for offline viewing

Software Engineering Intern | Ford Motor Company
Ottawa, ON | Sept – Dec 2020

- As the person second-most experienced with the code base, I brought forward major design decisions and implemented critical new features while increasing code stability and maintainability
- Completely redesigned the team's API to allow for request status callbacks and a more efficient use-case-based requesting interface
- Expanded unit test coverage by 25% using **gtest** and **gmock** frameworks in my first two weeks

Software Engineering Intern | Ford Motor Company
Ottawa, ON | Jan – Apr 2020

- Produced large-scale, thread-safe and performance-oriented software using **C++** to manage data from Controller Area Networks (**CAN**) across three Electronic Control Units (ECUs)
- Used **VS Code** and **Momentics** to develop cross-platform code to run on **Linux** and **QNX** embedded systems
- Delivered debugging tool to enabled CAN messaging and resource state querying and state requests during testing

Software Developer | Big River Technologies Inc.
Gananoque, ON | May – Aug 2019

- Designed and built a **MySQL** database to improve tracking of employee provisioning and access management
- Used **React** and **CSS** to implement new features and defect fixes to support the development of a client web app
- Developed coding best practice and company standards documentation

Cancer Radiotherapy Research Assistant | Grand River Hospital
Kitchener, ON | Sept 2019 – Mar 2020

- Worked with doctors and professors in a study to analyze retrospective radiation therapy data for the optimization of brain cancer treatment
- Developed **Python** scripts to extract and visualize treatment plan data from radiation modelling system

RELEVANT PROJECTS

Watopoly | *Available on the Google Play Store* ▶

- Built a native Android (**Java**), feature complete, multiplayer UWaterloo-themed version of Monopoly using advanced software design patterns and architectural styles

ML Spotify Playlist Generator | *Hack the North 2021*

- Built a **React** web app with a **Django** backend that generates a tailored Spotify playlist based on the user's saved songs and inputted keywords

Note-Taking Web App | *Personal Project*

- Used **React**, **Express**, **Node.js**, and **MongoDB** to create a dynamic web app for tracking notes, reminders, and to-do items

AR Android App | *Best VR/AR Hack, BrickHack 5* 🏆

- Developed an object recognition and heads-up information display app for the Vuzix Blade smart glasses with the use of Unity, Vysor, and Vufora

EDUCATION

Candidate for a BASc. in Biomedical Engineering, Computing Option
Sept 2018 – Present (3B)

University of Waterloo, Dean's List – Ranked 8th in Program
90% Avg, **3.85/4** GPA

Relevant Courses: *Software Design and Architecture, Data Structures and Algorithms, Digital Computation, Digital Systems, and hundreds of hours of self-learning through online coding courses*