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Patrick **Maloney**

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SKILLS

Languages: JavaScript/TypeScript, Java, Python, HTML, Sass, C++, C#, C, SQL
Frameworks/Tools: React, Redux, Node.js, Spring Boot, React Native, Android Studio, PostgreSQL, MongoDB, AWS

PROFESSIONAL EXPERIENCE

Software Development Engineer | Amazon   Vancouver, BC | May – Aug 2022
- Designed and implemented a user-friendly dashboard for corporate Amazon Gift Card clients, enabling them to independently view transaction volumes and troubleshoot failed API requests without contacting customer support
- Developed a robust **React** application, **Spring Boot** APIs, and **AWS Lambdas** to efficiently query a **PostgreSQL** database, aggregate data, and present informative visualizations to clients

Software Engineering Intern | Lifion by ADP   New York, NY | Jan – April 2022
- Created a Chrome extension that profiles the performance of Lifion's React web pages and generates an interactive visualization for identifying bottlenecks in the page load, enabling performance improvements for users
- Utilized vanilla **JavaScript**, advanced **CSS**, and **HTML** to design and develop a highly interactive data visualization UI
- Led log review meetings and instigated process changes to enhance defect detection in production

Full Stack Developer | IBM   Ottawa, ON | May – Aug 2021
- Developed a web app used by 26,000+ IT specialists to manage their instances of QRadar, a Security Information and Event Management (SIEM) system, using **React, Redux, JS**, **Sass**, **Node.js**, **SQLite**, and **TingoDB**
- Created **React** components and APIs in **Node.js** to support the searching, filtering, and viewing of cybersecurity 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 requesting workflow
- 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

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

PneumoSense | *Fourth-Year Design Project*
- Developed a **React Native** app, currently in use by doctors, that captures photos of lung ultrasounds and uses image processing and AI to detect Pneumothorax

EDUCATION

BASc. in Systems Design Engineering and Computing   Sept 2018 – April 2023
University of Waterloo, Graduated with distinction and on the Dean's Honours List   **90%** Avg, **3.85/4** GPA
Relevant Courses: *Software Design and Architecture, Data Structures and Algorithms, Computer Networks, Programming for Performance and hundreds of hours of self-learning through online courses*