Alexander Perocho

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Education

University of Western Ontario   **Sept. 2023 – Exp. May 2025**
Specialization in Computer Science—Software Engineering   *London, Ontario*

Sheridan College   **Sept. 2022 – April 2023**
Mobile Computing   *Oakville, Ontario*

Relevant Coursework

- Data Structures & Algorithms
- Database Management
- Computer Organization & Architecture
- Mobile Computing
- Introduction to Software Engineering
- Interactive Application Development

Relevant Experience

Fullstack Software Developer Intern   **May 2020 – Aug 2020**
Longbranch Neighbourhood Association — Flutter (IOS & Android).   *Toronto, Ontario*

- Interned as a **junior full-stack developer**, working in a small team under an **AGILE** methodology through the development of a private **trail-route application** available to over **11,000** users.
- Overlooked **front-end development** and **application functionality** through the use of **UX test cases** and **code-debugging**, resulting in a decrease in time spent on searching for and **fixing interactive/functional bugs**.
- Wire-framed, designed, and implemented **mobile and responsive UI/UX** over **multiple pages**, ensuring code efficiency through the use of **reusable elements**.
- Implemented Google Maps Platform **RESTful API's** to visualize trail routes.

Projects

Lite Code | *Java (Spring Boot), .NET MAUI, Figma, Git*   **February 2023 — present**
- Currently developing an **educational app** that visualizes the **code-structure** and **execution stack** of computer programs, intended to introduce **beginner programmers** to **algorithmic thinking**.
- Developing a **syntax-free, GUI-based programming language** implemented via **advanced OOP**
- Development is being carried out under an **AGILE (SCRUM)** methodology
- Current application functionality is under development through the creation of **User Stories**, **Use-Case/Activity diagrams**, and **requirements modelling**.

Pay Roll Automation App | *C#, .NET MAUI, Figma, Git*   **February 2023**
- **Wire-framed the UI/UX** for a mobile application to manage and **automate a payroll system** between **5** diversified employee categories, implementing functionality utilizing **advanced OOP** principles over an **MVVM design pattern**.

Fitness Center Database | *Azure SQL, Visual Paradigm, Figma*   **October 2022**
- Leveraged multiple technologies and frameworks to **wire-frame the UX/UI** for a **mobile and responsive front-end** as well as **model and normalize** a comprehensive **database** in order to **manage information systems** for a hypothetical fitness center.

Algorithm Visualizer | *HTML/CSS, JavaScript, JQuery, Python, Git*   **December 2021**
- Developed a web application that **visualizes various sorting algorithms**, highlighting their distinct **time complexities** and operational mechanics with variable speed and size.

Chess | *HTML/CSS, JavaScript, JQuery, Java, Git*   **November 2021**
- Developed a chess web application using **advanced OOP** principles, structured under an **MVC design pattern**, effectively implementing both the GUI and logic.

Bitmap Data Compressor | *Python, Git*   **October 2020**
- Implemented a **quad-tree data structure** that parses, **compresses**, and **decompresses** bitmap images over varying loss-levels and compression ratios of up to **33%**.

Technical Skills

Languages: Python/Jupyter Notebook, Java, C, C++, C#, SQL (Azure), HTML/CSS, JavaScript
Technologies/Frameworks: Git, .NET (MAUI), Figma, Flutter, React, JQuery, Bootstrap, Unix, AGILE (SCRUM)

Extracurricular

Athletic: Badminton Club, Climbing Club, Western Skii & Snowboard, Golf, Hiking, Swimming, Camping
Social/Academic: Western AI, Western Organization of Filipinos, Hip Hop Western