

Aaron Rajan

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EDUCATION

McMaster University (B.Eng.Mgt)

Hamilton, ON

Bachelor of Computer Engineering and Management, GPA: 3.93/4.00

Sep. 2020 – Apr. 2025

- McMaster Honour Award (\$1,000) | Dean's Honour List (Fall 2020 - Winter 2022)

TECHNICAL SKILLS

Languages: Java • Python • C/C++ • AutoCAD • YANG • JavaScript • Verilog • MATLAB • R • LaTeX

Web Development: HTML • CSS • React.js • Node.js

Tools: Git/GitHub • Jira • BitBucket • VS Code • Linux • Confluence • Agile • Quartus II • Raspberry Pi • Arduino

EXPERIENCE

Software Intern [↗](#)

May 2022 - Aug. 2022

Ciena

Ottawa, ON

- Assisted in the development of test suites to configure a wacsim using **Python** code to solve client issues.
- Utilized **Postman** and **MG-SOFT** to perform Get and Set requests to manage data from a **YANG** tree.
- Appended data to **JSON** and **XML** files to compare data received from Get requests to validate expected results.
- Worked with Python libraries such as **Paramiko** to establish a remote connection to create verification tests.
- Cooperated with a coding team using **Git**, **BitBucket**, **Confluence**, and **Jira**, while practicing **Scrum** methods.

PROJECTS

Heart Pacemaker [↗](#) | Python Developer

Sep. 2022 - Present

- Created a pacemaker which monitors and regulates a patient's heart rate using different configurations in **MATLAB Simulink** and a **GUI in Python** to register users as well as adjust parameters.
- Designed an appealing user interface using **Python Tkinter** and used **Pyserial** to interface with the hardware.

Currency Converter [↗](#) | Java Developer

May 2021 - Jun. 2021

- Developed a converter between **170+** currencies in **Java** using **JSON** files and an **API conversion system**.
- Devised a simple, interactive graphical user interface (**UI/UX**) to enhance user experience using **Java Swing**.

Management System [↗](#) | Java Developer

Apr. 2021 - May 2021

- Designed a management system which tracks the names, IDs, and wages of employees, optimizing the time needed to manage employee data by **70%** using **Java File I/O**.
- Implemented features, allowing for the addition to, removal from, alteration, search, and deletion of employee files.

System for Recycling Containers [↗](#) | Manager, Python Developer

Jan 2021 – Mar. 2021

- Designed a system of **dynamic simulation parts** using **AutoCAD** and **Python code** to recycle containers.
- Created a code model to classify containers using data from a virtual environment (**Q-labs**) and transfer them to bins depending on their level of contamination in under **30 seconds**.
- Led a team of 4 by creating **Gantt charts**, organizing team meetings, and delivering weekly progress reports.

EXTRACURRICULAR

Software Sub-Team Member [↗](#)

Oct. 2022 – Present

Maction | McMaster University

Hamilton, ON

- Created a medical dispenser which eases drug withdrawals by **50%**, through the controlled release of chemicals.
- Interfaced with **Python** and an **Arduino** to collect sensor data for the controlled release of chemicals.
- Designed a graphical user interface using **React.js** and **Node.js** to improve client satisfaction.

Circuitry Sub-Team Member [↗](#)

Sep. 2021 – Present

Chem-E Car Team | McMaster University

Hamilton, ON

- Collaborated with **10+** teammates to design a car that can travel a set distance of 50'-100' carrying a load using sensor data in the **Linux environment**.
- Coded in **C/C++**, soldered circuits, and worked with an **Arduino** and **Raspberry Pi** to create the car's circuitry framework.
- Created and maintained the club's website using **HTML**, **CSS** and **JavaScript** to improve club outreach by **40%**.