Aaron Rajan

647-801-6421 | rajana8@mcmaster.ca | https://www.linkedin.com/in/aaron-rajan | https://aaron-rajan.github.io/

Education

McMaster University (B.Eng.Mgt) Hamilton, ON

Bachelor of Computer Engineering and Management, ***GPA: 3.72/4.00*** *Sep. 2020 – Apr. 2025*

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

Technical Skills

Languages: Java • Python • C/C++ • YANG • Verilog • JavaScript • MATLAB • R • SQL
Web Development: HTML • CSS • Flask • React.js • Node.js
Tools: Git/GitHub • Jira • BitBucket • VS Code • Linux • Confluence • Agile • Quartus II • Raspberry Pi • Arduino

Experience

Software Intern May 2023 - Aug. 2023

Ciena *Ottawa, ON*

- Utilized **Python**, **C**, and **YANG** to establish a wacsim to manage test suites and improve client experience.
- Improved memory efficiency of a test suite by **40%** using **Linux shell script** and **Python File I/O**.
- Tested changes in hardware by upgrading from **3+** different states to ensure the behaviour is as expected.
- Applied skills in version control (**Git**, **BitBucket**, and **Jira**) to seamlessly integrate my changes with the team.

Waveserver 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

Hardware Image Decompressor | *Verilog Developer* Sep. 2023 - Present

- Designed a digital system capable of decompressing a **320x240** image to store in the external static random access memory, where the video graphics array controller reads and displays it on a monitor.
- Created a **Verilog** program using **Quartus II** to define a finite state machine and apply the mentioned systems.

Heart Pacemaker | *Python Developer* Sep. 2022 - Dec. 2022

- 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.

Extracurricular

Open-Source Team Member Sep. 2023 – Present

Google Developer Student Club | McMaster University *Hamilton, ON*

- Followed **Agile** principles with a team of developers to design a learning platform using **Ubuntu**, consisting of various features to enhance users' learning by **40%**.
- Created a user interface using **Flask**, **HTML**, and **CSS**, while implementing features from the **Figma** designs.
- Implemented a database for storage using **SQL** for the back-end of the website, designed with **Python libraries**.

Circuitry Sub-Team Member Sep. 2021 – Apr. 2023

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%**.