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: 3.7/4.0*** *Sep. 2020 – Apr. 2025*

- McMaster Honour Award ($1,000) | Dean's Honour List (Fall 2020 - Winter 2022, Fall 2023 - Winter 2024)

Technical Skills

Languages: Python • Java • Verilog • C/C++ • YANG • JavaScript • MATLAB • R • SQL
Web Development: HTML • CSS • Flask • Django • Spring Boot • Vue.js • React.js • Node.js • TailwindCSS
Tools: Git/GitHub • Jira • Bitbucket • Docker • IntelliJ • AWS • Azure • GCP • Linux • Agile • Postman

Experience

Software Developer Intern May 2024 - Aug. 2024

Scotiabank *Toronto, ON*

- Designed an interactive UX using **Flask** and **Node.js** backends and REST APIs, integrating **HTML**, **CSS**, and **JavaScript (React.js)**, enabling non-functional testing of **Apache Airflow** DAGs across **4+** environments.
- Built a **Bash** deployment script following **DevOps** practices to deploy code to **Azure** Repos and **Bitbucket**, manage 4+ lifecycle environments, and containerized environments using **Docker**.
- Created a script to accelerate the process of comparing 2 files across different lifecycle environments and dates by **80%** using **Python**, **Linux**, and **SQLite**.
- Expanded functionality for monitor tool to work in new environments by establishing a connection to an **Oracle** database using **Python**, **Linux**, and **Apache Airflow** to send out **10+** emails daily.

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**) and leveraged **Postman** for validating **RESTful APIs**, ensuring thorough integration and consistent functionality of changes within the team's CI/CD pipeline.

Projects

RESTful Job Portal | *Full-Stack Java Developer* Mar. 2025 - Present

- Built a full-stack Job Board web application featuring a **Spring Boot** backend with **PostgreSQL** for data storage and a dynamic frontend using **React** and **Node** for interactive, real-time job listings and user actions.
- Containerized the app with **Docker** to streamline deployment and enable scalable, cloud-native development.

Self-Sustaining Intelligent Greenhouse | *Full-Stack Developer* Sep. 2024 - Apr. 2025

- Developed a dashboard with **Python**, **JavaScript**, **HTML**, and **TailwindCSS** to display real-time sensor readings and AI-driven recommendations, ensuring seamless real-time monitoring and user interaction.
- Programmed **ESP32** in **C++** via **Arduino IDE** to automate sensor control and data logging to **AWS RDS MySQL**, enabling AI models in **Python** using **TensorFlow** like **LSTM** and **ResNet-50** for real-time insights.

Currency Converter | *Java Developer* May. 2021 - Jun. 2021

- Engineered a desktop application in Java that supports real-time conversion between **170+** currencies using **RESTful APIs** and structured **JSON** data, applying **OOP** principles for modular, maintainable code.
- Designed an intuitive GUI using **Java Swing**, focusing on clean **UI/UX** to improve usability and navigation.

Extracurricular

Open-Source Team Member Sep. 2023 – Apr. 2024

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

- Collaborated in an **Agile** team to develop a gamified learning platform on **Ubuntu** using **Django** and **Docker**, enhancing user engagement by **40%**.
- Built the user interface with **Django Templates**, **HTML**, and **CSS**, aligning closely with **Figma** prototypes.
- Implemented a scalable back-end using **Google Cloud SQL** and **Flask**, deployed through **Docker** containers.