

# Aaron Rajan

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## EDUCATION

### McMaster University

Sept 2020 – April 2025

#### Bachelor of Engineering — **Computer Engineering and Management (Co-op)**

- Achieved a culminating grade-point average of **3.99** on a 4.0 scale.
- McMaster Honour Award (Dec 2020) || Dean's Honour List (Fall 2020 - Winter 2021)

## SKILLS

**Languages:** Python • Java • HTML • CSS • JavaScript • MATLAB

**Tools:** Git/GitHub • Visual Studio Code • AutoCAD • Microsoft Office

**Soft Skills:** Adaptable • Collaborative • Lifelong Learner • Effective Communicator • Tenacious Work Ethic

## PROJECTS

### Remote Sensing for Sterilization Process | Modelling Team Manager

Oct 2020 — Nov 2020

- Collaborated to design container parts which consisted of a lid and base with detachable properties using **AutoCAD**.
- Developed a code model to **replicate the hand motion** of a surgeon using **Python** and **muscle sensors** to sterilize surgical tools by placing the containers into an autoclave in the **Q-labs environment**.
- Learned how to apply knowledge gained in this project to **design systems** to resolve real-world problems.

### System for Sorting and Recycling Containers | Python Developer

Jan 2021 — March 2021

- In a team of 4, designed a system of **dynamic simulation parts** and **Python code** to properly recycle containers.
- Mechanism can classify containers using **data from virtual environment (Q-labs)**, analyze container for contamination, and transfer container to correct bin for recycling.
- Expanded skills and knowledge of **smart devices** and **assembly modelling**.

### Management System | Java Developer

May 2021

- Designed an employee management system which tracks the names, IDs, and wages of its employees and optimizes the process of managing employee data using **Java File I/O**.
- Implemented features, allowing for the addition to, removal from, alteration, search, and deletion of employee files.
- Learned the essentials of undertaking a solo coding project, which include **time management**, strong **work ethic**, and the **adaptability** to learn during a project.

### Currency Converter | Java Developer

June 2021

- Developed a converter between all 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**.

## WORK EXPERIENCE

### Lifeguard | PPL Lifeguard

July 2021 - Sept 2021

- Supervised and interacted with **100+** residents weekly while securing their safety.
- Handled **responsibility** by maintaining and performing regular checkups on pool chemical levels.

## LEADERSHIP & INVOLVEMENT

### YMCA Volunteer | Gym Organizer, Front Desk

Dec 2017 - Jan 2019

- Set up games and activities for **50+** children aged 7-15 **at a time**.
- Led instructional sports for youth, teaching fundamentals and ensuring they were improving while enjoying the sport.
- Assisted **750+** YMCA members as they entered the facility at the front desk.

### Kumon Volunteer | Teacher, Instructor

June 2016 - Jan 2017

- Evaluated and helped with **1000+** math/English homework booklets of content from grades 1 to 12.
- Provided feedback and guidance to **500+** children who struggled with math concepts.