

# Raj Pandya

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## EDUCATION

### McMaster University

Bachelor of Computer Engineering

Hamilton, ON

Expected Graduation 2026

- **Academics:** CGPA of 3.9/4.0
- **Awards:** Deans' Honour List (2022-2023), \$3000 Engineering Award of Excellence (2022-2023)
- **Relevant Coursework:** AI Innovation (A+), Design Projects in Engineering (A) Linear Algebra (A), Differential Equations (A), Introduction Electrical Engineering (A+) Introduction to C++ (A+), Digital Logic (A+), Introductory Microeconomics (A),

## PROFESSIONAL EXPERIENCE

### Glen Oaks Co-op

Office Administrative Assistant

Oakville, ON

May 2023 – July 2023

- Managed and processed **40+** accounts payables/receivables using Yardi Genesis 2 for rent, AC, and parking payments
- Responded to **15+** calls per day on a multi-line phone system resolving queries and relaying messages
- Designed **20+** posters and memos promoting events and news in the community using Adobe Photoshop and Microsoft Word
- Maintained and updated records in Microsoft Excel to organize financial and personal information

### Aghabi Non-Profit Housing Inc.

Office Administrative Intern

Mississauga, ON

July 2022 – Aug 2022

- Documented a comprehensive timeline for a legal case spanning **20+** years using Microsoft Excel
- Organized and recorded work inventory reducing space usage by up to **25%** and evaluating the need for company insurance
- Conducted daily vehicle checks to ensure proper parking alignment and organization

## LEADERSHIP EXPERIENCE

### DeGroote Finance & Investment Council (DFIC)

Junior Quantitative Analyst

Hamilton, ON

October 2023 – Present

- Collaborated with a team of 10 quant members in communicating strategies through the QuantConnect platform
- Innovated and developed an automated emailing bot, streamlining the maintenance process providing daily insights into a portfolio of 40+ stocks, bonds, currencies, commodities, and yields enhancing data accessibility

### McMaster Rocketry

Controls Software Engineer

Hamilton, ON

October 2023 – Present

- Contributed to the Rust backend microcontroller and participated in weekly meetings to gauge progress
- Engineered a mini rocket with simulations and 3D printing successfully launching **100+ meters** into the air

## PERSONAL PROJECTS

### Anisync | Python, Flask, SQLite, BeautifulSoup, HTML, CSS, JavaScript, Unicorn, Nginx, Google Analytics

- Manufactured a full stack web application for the popular game osu! in which the client can input their MyAnimeList (MAL) username receiving up to 300 high quality levels through a HTML, CSS, and JavaScript frontend
- Implemented web scraping with BeautifulSoup, MAL, and osu! API's to get relevant information with **94.7%** accuracy
- Engineered a Python-Flask back-end connected to a SQLite3 database and using CRUD increased speeds by up to **600x**
- Deployed application on a Digital Ocean droplet resulting in **1000+** users within 3 days due to Search Engine Optimization (SEO)

### Rubik's Cube Solver | Python, OpenCV, NumPy, Matplotlib, Pillow, ColorMath, EasyGUI

- Built a functional Rubik's Cube solver capable of using computer vision, analyzing, and solving the cube from arbitrary starting states using linear algebra while providing a solution with a maximum move length of 20 turns
- Integrated calibration to increase accurate color detection by up to **800%** using ColorMath and Euclidean distance
- Simulated a 3D interactive simulation of the starting cube using Matplotlib and NumPy while displaying the solution

### Number Guesser | Python, NumPy, TensorFlow, OpenCV, Pygame, TKinter

- Designed a machine learning algorithm capable of analyzing and determining the digit of a hand drawn number with a **99.8%** accuracy using the MNIST database for training purposes, Pygame for input, and OpenCV for image manipulations

## TECHNICAL SKILLS

- **Software:** Python, C/C++, HTML, CSS, JavaScript, SQL, Java
- **Libraries/Frameworks:** NumPy, OpenCV, TensorFlow, Matplotlib, Pandas, BeautifulSoup, Flask, Pygame, Yfinance, FPDF
- **Developer Tools:** Git, Digital Ocean, Nginx, Google Analytics, Docker, Android Studios, Figma, Adobe Suite, Microsoft Suite