

Raj Pandya

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PROFESSIONAL EXPERIENCE

DeGroote Finance & Investment Council (DFIC)

Hamilton, ON

Quantitative Analyst

October 2023 – Present

- Collaborated with a team of 10 individuals in developing quantitative trading algorithms using Python
- Developed visual representations of stock market data while conducting numerical analysis using Yfinance, NumPy, Matplotlib, Pandas, and QuantConnect to determine optimal financial and investment opportunities

McMaster Rocketry

Hamilton, ON

Controls Engineer

September 2023 – Present

- Engineered, and prototyped a mini rocket from scratch for testing purposes resulting in a successful 100+ meter launch

Glen Oaks Co-op

Oakville, ON

Office Administrative Assistant

May 2023 – July 2023

- Managed and processed **40+** accounts payables/receivables using Yardi Genesis 2 for rent, AC, and parking payments
- Answered **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.

Mississauga, ON

Office Administrative Intern

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

Brampton Centennial Coding Club

Brampton, ON

Coding Competition Organizer

May 2022 – June 2022

- Led a team of 4 individuals in organizing a successful coding competition with **25+** participants
- Established 3/10 questions and marketing materials, including the event poster and logo using Adobe Photoshop and Illustrator

PERSONAL PROJECTS

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

August 2023

- 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
- Developed a Python-Flask back-end connected to a SQLite3 database increasing speed by up to **600x**
- Deployed application on a Digital Ocean droplet resulting in **850+** users within 2 days due to Search Engine Optimization (SEO)

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

July 2023

- Built a functional Rubik's Cube solver capable of taking pictures, analyzing, and solving the cube from arbitrary starting states using OpenCV and 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

December 2022

- 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

- **Programming:** Python, Rust, C, HTML, CSS, JavaScript, SQL, Java, XML, LATEX, MATLAB
- **Libraries/Frameworks:** NumPy, OpenCV, TensorFlow, Matplotlib, Pandas, BeautifulSoup, Flask, Jinja, Pygame
- **Developer Tools:** Git, Digital Ocean, Nginx, Google Analytics, Docker, Android Studios, Figma, Adobe Suite, Microsoft Suite
- **Concepts:** Data Structures, Algorithms, Object Oriented Programming

EDUCATION

McMaster University

Hamilton, ON

Bachelor of Computer Engineering | CGPA of 3.9/4.0

Expected Graduation 2026

- **Awards:** Deans' Honour List (2022-2023), \$3000 Engineering Award of Excellence (2022-2023)
- **Relevant Coursework:** Introductory Microeconomics (A), AI Innovation (A+), Design Projects in Engineering (A), Calculus 1 (A+), Calculus 2 (A), Linear Algebra (A), Differential Equations (A), Dynamics (A+), Electricity & Magnetism (A-)