

Ryan Oliveira

Developer/Analytics · Computer Science Major & Statistics Major & Math Minor · University of Toronto
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🔗 Skills

Programming Languages Python (Numpy, Matplotlib, Scipy) · Java · Rust · C/C++ · Javascript · PHP · SQL · R · LaTeX
Web Technologies HTML5 · CSS3 · REST · React · Gastby · ExpressJS · NodeJS · HTTP/TCP
Databases MySQL · PostgreSQL · SQLite3 · MongoDB · Neo4j
Tools/Management Git · Jira · R Studio · Agile/Scrum · MS Suite

Projects

Proxy Server

Individual Hobby

- Created a localhost proxy server designed to fetch and cache web pages, acting as a VPN when deployed on a remote machine **(Python)**
- Designed a system to modify and add to the code from retrieved html files, displaying how recent the fetched page is.

Sudoku Solver

Individual Hobby

- Designed a recursive backtracking algorithm to find a solution to a sudoku board. **(Python)**
- Enabled the ability to exhaustively check if a sudoku board has more than 1 unique solution
- Rewrote the program to benchmark the efficiency of the algorithm when implemented in a faster language **(C)**
- Found that the C implementation of the algorithm runs **97%** faster on average compared to the Python implementation

Terminal Tic-Tac-Toe and Chess

Individual Hobby

- Developed Tic-Tac-Toe and Chess games completely playable in the terminal **(Python)**
- Created client and server applications to allow playing others online through TCP sockets **(Python)**

AI Recognized User Handwritten Digits

Individual Hobby

Currently Implementing

- Implemented a Neural Network from scratch trained on the MNIST digit dataset **(Python, Numpy)**
- Currently designing an application that allows a user to draw on a canvas, where a Neural Network will classify the user's handwritten digit **(Python)**

Work Experience

Ontario Provincial Election

Brampton, CA

Revision Deputy Returning Officer (RDRO)

2018

Responsible for supervising election workers and voting procedures, assisting voters without a voter's card, and completing all necessary forms.

Volunteering

Mathematics Outreach Program

University of Toronto

Outreach Volunteer

2017–2020

- Taught elementary and high school students university-level mathematical concepts such as recursion and calculus.
- Conducted tutorials and invigilated for the Kangaroo Math Contest

Education

University of Toronto HBS

Honours Bachelor of Science in Computer Science, Statistics, and Math

Sep. 2016 – Apr. 2021

- Relevant Courses:
 - Databases, Principles of Computer Networks
 - Neural Networks and Machine Learning, Algorithm Design and Analysis, Parallel Programming
 - Methods of Data Analysis, Statistics with Applied Probability