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I am a recent graduate from McGill University, with a BA in computer science and a minor in political science. CS focus on statistical programing, Machine Learning, and Database management. I have a robust Mathematics and Statistics proficiency and work well in collaborative environments.

Python – Java - JavaScript – Dynamic Programing - Supervised Learning - Neural Networks – PostgreSQL – Jupyter Notebook - Mathematics – Statistics - Algorithms – Cloud Computing – Image Recognition - Excel

#### Education

# **McGill University** – Faculty of Arts, Montreal, Canada Bachelor of Arts (B.A.) Major in Computer Science - Minor in Political Science

2017-2021

#### **Relevant Coursework**

- Comp 421 Database Systems
  - o Created and analyzed conceptual designs of relational databases
  - o Created and implemented various databases using PostgreSQL
  - o Performed query execution to carry out the extraction, manipulation, and updating of data within databases using Java Database Connectivity
  - o Created application programs for various databases using both Java and Python
- Comp 551 Applied Machine Learning
  - o Built neural networks to perform supervised learning on large sets of data
  - o Implemented various types of regression, classification, and optimization algorithms to reduce error and loss of accuracy
  - o Performed regression on COVID-19 data to predict hospitalization cases
  - o Visualized Google search frequency of the most common symptoms in the US
  - o Developed an image recognition model to identify handwritten digits in a digits dataset

# Greenwich High School, Greenwich, CT, USA

2013 - 2017

High School Diploma

- AP Scholar with Distinction Award (2016 and 2017)
- National AP Scholar Award (2017)
- AP International Diploma (2017)
- National Merit Commended Scholar (2016)

## **Projects**

## **Handwritten Digits Recognition**

• Implemented a deep neural network model, more specifically a Convolutional Neural Network (CNN), for a multi-label classification task. Given an MNIST dataset consisting of images which contain between 1 to 5 handwritten digits, the model was trained using automatic differentiation to recognize the depicted digits. The model yielded an accuracy of approximately 99.62%

## Hotel Database and Reservation System Using Python and PostgreSQL

Created a relational database for a hotel, populating the database with dummy data and implementing a user-friendly application program for the database, allowing the teller of the hotel to interact with the U/I based on what tasks he or she must complete according to the guests' requests. Also includes procedures to identify most profitable guests, as well as visualization of relevant information.

## Visualizing COVID-19 Symptom Google Search Trends

• Imported, cleaned, and visualized the Google search frequency of the most popular symptoms throughout the US over time using various Python libraries, including pandas, numpy, and plotly. Visualization includes a time slider to observe week-by-week changes for all of 2020.

### **NBA Shot Data Visualization**

- Created a Python program that prompts user for a name of an NBA player and a season (after 1996), and returns a scatter plot visualization of where every shot by that player for that season was taken from on the court, as well as whether the shot went in or not
- Data was scraped from basketball-reference.com using Selenium, and data extraction and visualization was done using pandas and seaborn Python libraries

# **Work History:**

- Zaniac: Taught Math and Java
- Brain Boost Learning: Taught Math and computer programming
- Greenwich Country Club: Worked as Groundskeeper
- Omnivore: Worked as Dishwasher, helped with food prep

## **SKILLS & LANGUAGES**

Fluent English, conversational Spanish, basic French, basic spoken Levantine Arabic.
Computer Skills: Java, Python, PostgreSQL, C, HTML, JavaScript, OCaml, MIPS Assembly Code, Microsoft Office