Patrick Iskandar

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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 **2017-2021**
Bachelor of Arts (B.A.) Major in Computer Science - Minor in Political Science

Relevant Coursework

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

Hospital Database and Application Programming Using PostgreSQL and Java Database Connectivity

- Using dummy data, I created a database application to keep track of COVID patients, contact cases, patient status and six other data factors. The application provided a user interface to enable data entry, query, and modification using PostgreSQL and Java Database Connectivity (JDBC)

COVID-19 Predicting Hospitalization Rates and Visualizing Search Trends

- Employed two regression models (K-nearest neighbors and decision trees) using Covid-19 databases, to predict hospitalization rates from related Google search data
- Visualized the search frequency of the most popular symptoms throughout the US over time using various Python libraries

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

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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