WAHAB AHMAD

B. A. SC COMPUTER ENGINEERING 2B

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/wahab-ahmad

SKILLS

Languages

- C++/C
- Python
- Java
- Javascript
- SQL

Tools and Frameworks

- Git
- Docker
- Tensorflow

Activities

StarterHacks

- Taught a team of high school students Python for a contest
- Coached the team through brainstorming, planning and development processes

Autonomous Toy Car

- Built and programmed a toy car with ultrasonic and line sensors to evade obstacles and stay in its lane
- Earned 1st place int Tetrix Max driving contest

WORK EXPERIENCE

Software Engineer

May– Aug 2020

PointClickCare

Remote

- Completed 10 Jira tasks, fixing **code defects**, **updating code** to comply with the new business requirements and **optimizing runtime** of processes through modifying **Java backend** and updating **SQL database**
- Wrote and updated a total of 30 java **unit tests**, validating code changes function as required
- Preformed 50+ monthly **regressions tests** to assure the functionality of the webapp

Software Developer

Jan – April 2020

Watonomous

Waterloo, ON

- Responsible for forming an accurate picture of the surrounding environment around the self-driving car using information provided by HERE map and OSM maps
- Wrote a **C++ parser** to convert HERE map to OSM map, retaining crucial details to allow the car to maneuver safely

Junior Data Scientist

Sept – Dec 2019

Praemo

Downtown Kitchener, ON

- Optimized real-time python **data preprocessing** code to detect anomalous cycles in machines, reducing the runtime by 20%
- Preformed **supervised clustering and classification** using k-means and k-nearest neighbor algorithm on real-time data
- Preformed unit and regression tests on **Docker containers**, then deployed the containers to **Kubernetes**
- Created a **custom python package** and refactored common functions into the package, reducing the codebase by over 3000 lines of code

Junior Data Scientist

Mar – April 2019

Mentr.ai

Downtown Toronto, ON

- Gathered 25,000 online courses using the **Google Search API**, storing the data on **SQL database** for a course driven app
- Cleaned the data with **Pandas and Numpy**, retaining the optimal links
- Implemented a **word2Vec model** to rank order the course links via the description snippet according to relevance

Software Developer

Jan – Feb 2019

GrowthGenius

Downtown Toronto, ON

- Uncovered repetitive sheets tasks and automated them through a custom **google sheets add-on**, diminishing 2 hours of weekly tasks
- Created an automated email responder using **Appscipt** to deliver routine updates to customers
- Wrote a **python web scraper** to retrieve LinkedIn user data and store it in **mongoDB**

PERSONAL PROJECTS

Machine Learning Dashboard (Python)
github.com/w28ahmad/Dashboard

Implemented popular applications of machine learning models

- Built a multivariate **LSTM neural network** to predict stock prices one day into the future with 90% accuracy
- Used Python's TextBlob to preform real-time **sentiment analysis** on twitter tweets for a given stock
- Incorporated a pretrained **YOLOv2 model** into the dashboard to detect and highlight objects in images and videos

Task Manager API (Javascript)
github.com/w28ahmad/Task-API

Secure API that manages and prioritizes tasks to improve productivity

- Implemented a **RESTful API** with secured endpoints using node express and deployed it on Heroku
- Integrated **JSON web tokens** for authentication and a **hashing algorithm** for securing the login information
- Incorporated automated **email notifications** and a **file upload** system to upload multiple tasks

Social Network (C++)
github.com/w28ahmad/Social-Network

Representing trust relationships between users on a social network with direct graphs

- Analyzed trust relationships within a social network through reflexive, symmetric and transitive relations
- Implemented **Warshall's Algorithm** for maintaining a transitive state for users on a network
- Implemented **Kruskal's Algorithm** to find the minimum spanning tree among users

FaceGen (Python, Tensorflow)
https://github.com/w28ahmad/FaceGen

Generating faces through GAN model

- Trained a **GAN model** with 5000 images to generate original greyscale and colored faces from scratch

Human Face Features Classification (Python, Tensorflow)
github.com/w28ahmad/FaceFeatureDetection

Classifying various features of the face

- Trained a **convolutional neural network** to detect facial features with a dataset of 5000 images
- The trained model can accurately predict features in photos, videos and live webcam feed