Siavash **Pourdeilami**

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Tech. Skills

Programming Languages: Python, C++, Javascript, SQL, HTML, CSS, SAS, Scheme
Technologies: Flask, Django, Linux, Bash, Git, OpenCV, Azure, AWS, REST, JSON, ArcGIS, PostgreSQL, Dash, Apache Nginx, MySQL, OAuth, Power BI

Work Experience

Brdg.Ai

Pennsylvania, USA (remote)

Software Engineering Intern — *September 2020 – December 2020*

- Developed a metric to measure the accuracy of a function that would warp camera coordinates of objects tracked using different cameras to a common 2D space.
- Improved the calibration amongst cameras by using points tracked on individual cameras as a common calibration point for all cameras.

Canadian Space Agency

Quebec (remote)

Software Developer (Co-Op) — *September 2020 – December 2020*

- Worked on two flask micro-applications that would allow users to visualize and filter data from the SCISAT and Alouette-I satellites on demand (using Dash and Plotly).
- Deployed a multi-app flask application in a Linux environment (on two individual test and deployment servers).
- Prepared a report that would assess the accessibility status of the micro-applications based on W3 and Government of Canada's Web Content Accessibility Guidelines (WCAG) 2.1.
- Collaborated with a team to develop a script that would clean data from the SCISAT satellite for the NASA International Space Apps Challenge.

Ministry of Energy, Northern Development and Mines

Toronto, ON

Software Developer (Co-Op) — *Jan 2020 – May 2020*

- Developed a website to act as a portfolio and central data hub for our branch using Django.
- Implemented multiple pipelines to fetch, process and visualize real-time data using Chart.js
- Created a real-time data request tool to allow users to process data on our SQL server and visualize their queries through a wide range of visualization tools.
- Started integrating multiple Microsoft Azure solutions within the branch's back-end.

Terrene

Waterloo, ON

Software Developer — *May. 2019 - Sep. 2019*

- Developed several Python programs to grab data from a webpage, format and then process data to train a machine learning model using an AutoML engine.
- Created predictive models for different applications such as retail sales, predicting daily, weekly and monthly sales. One of those models used historical sales data of restaurants to predict how much of each item they would need to order in the future.
- Developed multiple pipelines to continuously fetch new data and re-train existing models.

Terrene

Waterloo, ON

Student Volounteer — *Jul. 2017 - Aug. 2017*

- Performed unit testing and QA document control.
- Dealt with debugging open-source programs. Developed a script to filter csv files by removing outliers, null values and other irrelevant data.

Projects

qUERify

A data visualization tool for Spotify

- Developed a website that provides a unique customizable overview of the user's listening history (most played songs/albums/artists, peak listening time, mood analysis etc.)
- Retrieves the lyrics to each song using the Genius API and visualizes the data.
- Creates a new playlist based on the user's favourite tracks (an algorithm that looks into each song's key, BPM and other variables such as energy, danceability and loudness).

Interactive Website

A file sharing platform

- Developed using Flask, allows users to upload files and share.
- Includes user management, data encryption, two factor authentication, image compression and a file management system for uploads made by individual users.

DeadShooter

A 2D shooter game

- Designed and developed using PyGame.
- Classic horizontal shooter game. Main character on the left side of the screen, enemies spawn on the right side, the goal of the game is to achieve the highest possible score by shooting the enemies.
- Coded a similar implementation of the game using SFML in C++.

Education

University of Waterloo

Waterloo, ON

BES in Geomatics — *Sep 2018 - May 2023*