Siavash Pourdeilami

spourdei@uwaterloo.ca | github.com/spourdei | linkedin.com/in/spourdei

Technical Skills

Programming Languages: Python, C++, Javascript, SQL, HTML, CSS, SAS, Scheme
Technologies: Flask, Django, React, Linux, Bash, Git, OpenCV, Azure, AWS, Kubernetes, Grafana, Sentry, REST, JSON, Jira, Redis, Postman, Docker, Jenkins, ArcGIS, PostgreSQL, Dash, Apache Nginx, MySQL, OAuth

Work Experience

Lumafield — *San Francisco, CA*

Dev-Ops Engineer — *September 2022 – December 2022*

- Developed and maintained Grafana dashboards to monitor Kubernetes nodes and set up alerting for memory spikes and outages. Performed testing on these alerts. This involved writing technical documentation such as proposal for approval and eventually user documentation.
- Audited company's AWS bill, tagged all resources, identified and proposed cost-saving opportunities.
- Designed a Python service to regularly check the backend pipeline and restart Dask workers in case of failure.

Deliverect — *Toronto, ON*

Backend Developer Intern — *January 2022 – April 2022*

- Improved API integrations for leading national and global POS systems and delivery apps including Uber Eats, DoorDash, LightSpeed and Square.
- Worked in an agile environment to resolve bugs reported through Atlassian Jira and wrote unit tests for the resolutions in Python. Incorporated logging to improve error tracking in Sentry and notify developers via Slack bot.
- Initiated and deployed branch-specific hotfixes to staging and then production using a CI/CD pipeline to quickly resolve issues affecting users.

Brdg.Ai — *Pennsylvania, USA (remote)*

Software Engineering Intern — *May 2021 – August 2021*

- Developed a Python script to measure the accuracy of code that would warp camera coordinates of objects tracked using different cameras to a common 2D space.
- Improved the calibration of 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 Python (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 Python (Django).
- Implemented multiple pipelines to fetch, process and visualize real-time data using Chart.js
- Created a real-time data request tool to process data on a SQL server and visualize queries through a wide range of visualization tools.

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.

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).

ChatGPT-Live

ChatGPT with live access to the internet

- Integrated Metaphor's API to search the internet for the user's query.
- Summarizes the content retrieved from the internet search using an embedding model. The summarized text that is now within ChatGPT's prompt length limit, then gets fed into OpenAI to generate a response to the user query.

Education

University of Waterloo — *Waterloo, ON*

Bachelor of Environmental Studies in Geomatics, Minor in Computer Science — *Sep 2018 - May 2023*