Samira Bulle

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Work Experience

Software Engineering Intern   May 2018 - Present
Alarm.com   McLean, VA

- Built a full stack third party API integration in **C#** that subscribes to a customer's electricity data and displays it in graphs on their energy usage dashboard
- Created a virtual machine with proper permissions to test the integration and SSL connection before deployment
- Interfaced with third party developers and stakeholders to ensure that the development process went smoothly

Software Engineering Intern   Sep 2017 - Dec 2017
Achievers   Toronto, ON

- Developed a web service to recommend similar items when browsing an item's page in the Achievers' rewards shop
- Built a REST API using **Flask** to serve top recommendations to the Achievers' rewards shop
- Determined recommendations by computing similarity scores between 18000+ product descriptions using the TF-IDF algorithm in **Python**

Data Scientist Intern   Jan 2017 - Apr 2017
Department of National Defence   Toronto, ON

- Introduced 21 new semantic features to improve prediction of Tweet popularity
- Tuned a random forest classifier to increase the accuracy of popularity prediction on unseen tweets from 91.7% to 98.6%
- Automated the feature extraction process by using **NLP** tools in **Python** to run sentiment analysis on thousands of tweets
- Detailed findings in a scientific paper which is being reviewed for publication

Projects

Marauder's Map
Android, Web | Github | Medium

- Built an Android app and web app that allow users to see their friends' locations in real-time on separate channels
- Leveraged the PubNub Real-time Messaging SDK in the Android app to publish live user location coordinates every second
- Used the Google Maps Javascript API to display location markers on the web app

Technical Skills

Software: Python, SQL, C, C#, PHP, ASP.NET
Data Science: classification, feature engineering, natural language processing, Weka
Misc: Flask, Git, NLTK, NumPy, SciPy, scikit-learn, pandas, matplotlib

Education

Bachelor of Mathematics in Combinatorics and Optimization   Sep 2015 - Apr 2020
University of Waterloo

Relevant Coursework: Data Types and Structures, Computational Physics, Probability