ADITYA (ADI) SHARMA

Employment

IBM
Data Scientist and Engineer   **Sept. 2018 to Current**
- Performed numerous data wrangling operations and EDA using tools like Tensorflow, pandas, and scikit-learn on large amounts of unstructured sensor data (about 500 GB) and meta data(20 GB) from various data sources from thousands of oil wells to make a pump failure prediction model
- Developed an orchestrator that spawns new workers that monitor Cloud Object Storage (IBM's version of S3) and relay and store any new addition to a NoSQL DB (Cloudant), increasing efficiency by 500%
- Used multithreading (joblib) and multiprocessing(dask, multiprocessing) to make data ingestion pipeline 30 times faster than it's previous state
- Currently working on migrating from IBM DB2 to Cassandra to make data more accessible and infrastructure scalable

Citco Fund Services   Toronto, ON
Software Engineering Intern   Jan. 2018 to Apr. 2018
- Designed and developed an end-to-end web application that monitors and records the health of various APIs, URLs, and services, records the results and alerts the service owner in case of malfunction using JavaEE, Spring MVC, Hibernate, SQLServer, Maven and Tomcat reducing average service downtime by three days
- Implemented caching, logging and multithreading features to make the web application more reliable, stable, and robust
- Designed, developed and shipped a RESTful backend API from scratch based on business requirements using object oriented design to be consumed by various third-party clients using C# and Entity framework
- Fixed and shipped various bugs on the front-end in the main client-facing web application supporting the company using React with Angular dependency injection.

Shaw Communications   Calgary, AB
Software Engineering Intern   Jan. 2017 to Apr. 2017
- Used Tableau to visualize and analyze customer base in Calgary and recommend strategies for customer acquisition and growth
- Designed and implemented various features on the front end for Shaw's landing pages with regards to the Phone Plan using Angular, HTML/ CSS
- Decreased double AA accessibility issues according to WCAG ARIA standards on the entire platform by 48% across the entirety of Shaw's main online platform and hence saving about $15,000 in fines

Selected Projects

MyoVision
- Designed, develop a system that plans workouts and tracks the number of push-ups performed by an individual over a given frame of time using the Myo armband
- Analyzed the data gathered via the various sensors to perform relevant statistics over the quality of push-ups
- Recommended ways of improving posture based on the statistics collected

Various Kaggle (Data Science) Competitions
- Titanic: Built a machine learning model to make predictions about what sort of people are likely to survive from the tragedy
- Real Estate: Built a Housing price predictor to predict the price of houses based on various features
- Created a World Cup prediction model to determine who is going to win the FIFA World Cup
- In Progress: Two Sigma - Using News to Predict Stock Movements

Sentimental Analysis
- Scrapes twitter for a given topic/conversation
- Analyses the twitter sentiment(emotions associated and polarity) of an user on a given topic/conversation
- Stores the result in a relevant CSV file and displays the results in a clean UI

Awards

Loran Scholar's Foundation · Loran Scholar   June 2016
One of 31 Recipients selected out of 4500 to receive the Loran Scholarship, Canada's most comprehensive scholarship offered on the basis of leadership, character, service and grit

University of Waterloo · Sanford Fleming Foundation Scholarship   2017
Awarded for winning the Waterloo Engineering Competition competing against students ranging from first year all the way to grad students. Got a chance to represent University of Waterloo in the Ontario Engineering Competition in Ottawa, Canada.

ECHacks 2017 · Wolfram One Award   Nov. 2017
Awarded to the most promising, innovative and potential-worthy hack (MyoVision)

Education

University of Waterloo   2016 to Current   Coursera, Bloomberg, Udacity
Bachelor's of Applied Science Computer Engineering   Numerous Courses in Machine Learning, Data Science and Software Development

Contact

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Skills

Languages :
Python
C++
SQL
Java
Javascript
R
HTML/CSS
C#
Bash

Frameworks/Technologies
Tensorflow
Spark
scikit-learn
Docker
pandas
AWS Redshift
IBM DB2
Cassandra
PostgreSQL
Kubernetes
Git

Involvement

Watonomous (Self-Driving Car Student Design Team)

UW Data Science Club

UW Badminton Club

Effective Altruism Club

Activities

When I'm not tinkering with/learning about new tech or in classes, you can probably find me:
- Volunteering; I find great joy in giving back to the communities and causes that I am passionate about
- Reading/Listening to cool and interesting books and podcasts.
- Playing badminton/ table-tennis/tabla(Indian percussion)