SANAT BHALLA

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EXPERIENCE

Data Engineer
Ottawa, ON (Remote)

InnovaPost
May – Aug 2021

- Worked on a continuous ongoing project to shift all the Canada Post data from Legacy Oracle Servers to the Cloud Databases in an Agile and Scrum format
- Developed Initial and Delta Load ELT Pipelines using Python that performed various transformations to move data from Oracle to Azure SQL Server
- Used Azure Data Factory as an Orchestrator to accommodate the pipeline and made Spark API calls to trigger Databrick notebooks
- Developed and Documented unit tests to check the working of different parts of the Data Pipeline at the functional level

PROJECTS

Movie Recommender | Python
February 2021

- Developed a Machine Learning Movie Recommendation System using Python based on the concept of **User-User Collaborative Filtering**
- Used Python Libraries such as Numpy and Pandas to work with DataFrames, arrays and wrote various algorithms to clean, standardize and structure the final solution

Hydra Card Game | C/C++
August 2021

(Private Repository, message to see)

- Developed the backend of a computerized card game using Object-Oriented Programming and advanced C/C++ concepts such as smart pointers, inheritance, polymorphism
- Managed memory on the heap using smart pointers thus making the program more efficient
- Implemented a user friendly MVC (Model View Controller) design pattern that promoted high cohesion, low coupling and the concept of encapsulation and information hiding

Accounts | C/C++
July 2020

- Developed an accounting backend model using C++ allowing user management of different types of accounts
- Added functionality for various operations like crediting and debiting funds from accounts
- Used Object Oriented Programming to provide the client interface

Stock Movement Visualizer | Node.Js
December 2020

- Developed an app to visualize changes in stock prices
- Designed front-end of the web app using HTML-CSS, added functionality with JavaScript and hosted using Heroku
- Monitored the backend during the runtime using NodeJs/Nodemon

ACTIVITIES

Data Science Club (2020 – 21)

- Developed a **Data Visualization Project on NBA Statistics** using Jupyter Notebooks for the UW Data Science club that helped me understand the basics of Machine Learning models
- Used Python Libraries such as Numpy and Pandas to explore and clean the data
- Used Plotly to visualize and present the data to draw conclusions

Head Boy (2019 – 20)

- Headed the students' council (2019) and was responsible for major decisions in maintaining the school's decorum
- Nominated by the school for Indo-Russian meet held at New Delhi, India

Vice Head Boy (2018 – 2019)

- Organized various activities as well as planned large events for the school and managed contributions (both financial and in kind) of over 5000 students
- Collaborated with individuals/groups at different stages to represent the school

EDUCATION

University of Waterloo
Waterloo, Canada

2020 - 25 (expected)

Candidate for Bachelor of Computer Science (*Specialization in AI*)

Member of UW Data Science Club

DPS Kalinga
Cuttack, India

2006 - 20

AISSE (class 10) – 92.4%

AISSCE (class 12) – 96.6%

SKILLS

Languages

Python, C/C++, JavaScript, SQL HTML/CSS, DrRacket, TypeScript

Data Science / Engineering

Scikit-learn, MySQL, Apache Spark, Databricks, MongoDB

Software/Web Development

Angular, NodeJs/Nodemon, Bootstrap

Others

Git, GitHub, Azure DataFactory

Currently Learning

React.js, R, Hadoop, Machine Learning Techniques

AWARDS

University of Waterloo's President's Scholarship of Distinction

Microsoft Professional Orientation : Big Data

Master DPSK 2020 at DPS Kalinga

Highest Scorer at National Basketball Championship 2019

INTERESTS

Data Science
Machine Learning
Data Engineering
Software Development
Software Engineering