

SANAT BHALLA

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EXPERIENCE

Data Engineer

InnovaPost

Ottawa, ON (Remote)

May - Aug 2021

- Developed multiple ETL/ELT Pipelines using Python that performed various mappings / transformations to transfer data from Oracle Legacy Databases and Azure DataLake storage to the AzureSQL Server Databases using Python
- Used odbc/jdbc drivers in Databricks to connect to the source and target databases and used Spark and its APIs to initiate the Pipeline
- Developed and Documented unit tests to check the working of different parts of the Data Pipeline at the functional level
- Used Azure Data Factory as an Orchestrator to accommodate the pipeline and make API calls to trigger Databrick notebooks

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

Connect_X Game | C/C++

January 2021

- Developed a backend model for the game Connect_X that follows the conventional trend of the game Connect4 but with a greater variety of options
- The algorithm of this model allows the user to connect any positive number of pieces instead of just 4 to win the game enabling the alteration of the width and height of its structure thus ranging the complexity of the game from easy to hard

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

Mentor (2019)

- Taught Mathematics and Computer Science to the students of Madhurmayee, an NGO in India
- Introduced functional programming as a way to solve problems in a fun way while enjoying various coding challenges

EDUCATION

University of Waterloo

Waterloo, Canada

2020 - 25 (expected)

Candidate for Bachelor of Computer Science

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, Android Studio,
Hadoop, AWS

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
Software Engineering
Software Development
Machine Learning
Full Stack Development