





Apnatva Singh Rawat

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EDUCATION

Trinity College Dublin

BAI, Computer Engineering

2019 -2023

First Class Honours

- 2+2 Program with Thapar University, India. Completed 2 years with an 8.98 GPA.
- Transferred to TCD for the final 2 years. Completed year 3 with an overall 73%.

PROJECTS

Vehicle Emissions Logger

Feb '22 - April '22

Peer-to-Peer Blockchain Network

git.io/Project2

- Wrote 300+ lines of *Python* to handle TCP sockets and added multi-threading to handle multiple connections at the same time with built-in error handling to prevent unexpected crashes.
- Collaborated with 3 peers over *Git*. Added *SQL* to retrieve data from the EU Vehicle CO₂ Emissions Database and perform calculations from the data added to the blockchain.

Cyclistic Data Analysis

June '22 - July '22

Case Study - Python, SQL and MS Excel

git.io/Cyclistic

- Compiled the CSV files as a single SQL database in *MSSQL Server* to clean and transform data. Exported data to an *Excel* Workbook and visualised in *Tableau*.
- The cleaned dataset from SQL was analysed with a *Python* script. Data was imported using *pyODBC* and stored in a *Pandas* dataframe. The statistics were saved and visualised in *Excel*.
- Final report was compiled in *Powerpoint*.

S&P500 Stock Dashboard



May '22 - Aug '22

R - Shiny and Plotly

git.io/ShinyStock

- Wrote 100+ lines of *R* code to scrape historical stock price for S&P500 data from Yahoo Finance. Performed relevant calculations to calculate data points and visualised them using *Plotly*. Hosted at apnatva/shinyapps.io.
- Set up a Server and UI using *Shinydashboard* to display a candlestick chart for Stock Prices by day, month or custom date. Also includes a bar graph to visualise % returns of the relevant industry over 30 days, 1 year, 3 years and so on.

Other Projects

- **Morse Code on Raspberry Pi Pico**  : Wrote 150+ lines of *ARM* and collaborated with a peer to write nearly 650 lines of *C* to process the input from the board and perform output to a command line. More details are in the repo.
- **Project 5**  : Project Description

EXPERIENCE

Linier Dataquest

May '22 - Present

Python Developer Intern - LOR

Dehradun, India

- Developed an application using 300+ lines of *Python* with a simple interface using *PySimpleGUI*.
- Program was connected to a *MSSQL* Database using *Python PyODBC* to store downloaded data. The requested data was scraped from Twitter, and Google News using *RESTful APIs* based on inputs by the user. This served to accumulate data to be used to train models for sentiment analysis.
- The user would choose an appropriate company, and SQL queries would pull relevant keywords and pass them to scrapers.
- Also worked to develop a PDF Reader for Hindi and English using *Tesseract* in *Python* to extract data from tables in PDF to a CSV file.

CERTIFICATIONS

Google Data

Analytics

Completed 8 courses on Coursera. Learned about the workflow, and several tools like VLOOKUPS, Pivot Tables and more in Spreadsheets, Visualisation in Tableau, R, SQL Queries, and completed 2 Case Studies.

June '22

AWS Educate

Introduction to

Cloud 101

Explored the basics of Cloud Computing. Completed several labs to develop a foundational understanding of various AWS Services like *S3*, *EC2*, *DynamoDB*, *RDS*. Also gained hands-on experience in managing credentials using IAM and creating Public and Private VPNs on AWS Management Console.

July '22

freeCodeCamp

Machine

Learning with

Python

Developed an understanding of various Machine Learning Algorithms and gained hands-on experience building models like: *Spam Detector*(NLP using TensorFlow, Keras and NLTK), *Book Recommender*(NearestNeighbour in scikit-learn), *Cat v Dog Image Classifier*(CNN) and *Medical Bill Estimator*(Linear Regression). [Code](#).

July '22

TECHNICAL SKILLS

Programming languages: Python, C, C++, ARM

ML/AI: TensorFlow, Keras, Numpy, Pandas, Plotly

Data Analysis Tools: R, SQL, Spreadsheets, Tableau

Miscellaneous: Git, Shell, AWS Cloud, L^AT_EX, Raspberry Pi

POSITIONS OF RESPONSIBILITY

Digital Media Coordinator at Hult Prize Foundation - Certificate

Sep '20 - May '21

Led and managed 3 dynamic individuals to establish an online presence of the local chapter.

Generated 30 posts and posters to support Social Media growth.