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PROJECTS

Cyclistic Data Analysis   August '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 analyzed with a *Python* script. Data was imported using *pyODBC* and stored in a *Pandas* dataframe. The statistics were saved and visualized 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 visualized 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 visualize % returns of the relevant industry over 30 days, 1 year, 3 years, and so on.

**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 CO_2 Emissions Database and perform calculations from the data added to the blockchain.

Other Projects
- **AirBnB Dublin** ⎘ **:** Visualisations in R using *ggplot2, plotly, mapview*. The script can generate 30 figures: Histograms, Bar Graphs, Pie Charts, Scatter Plots and Maps. This was merely an exercise to construct visualisations to explore the relationships in Data. No insights are included as it was only an attempt to explore visualisations in R.
- **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.

EXPERIENCE

MOUNT TECHNICS CONSULTANCY PVT. LTD.   May '22 - August '22
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.
- The user would choose an appropriate company, and SQL queries would pull relevant keywords and pass them to scrapers.

EDUCATION

Trinity College Dublin   2019 -2023
BAI, Computer Engineering   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%.

CERTIFICATIONS

Google Data Analytics Certificate ⎘	Completed 8 courses on Coursera covering the workflow of analysing data from cleaning, to processing and visualising it. Worked with SQL, R, Tableau, and MS Excel(VLOOKUP, Pivot Table). Completed a case study by applying the hard and soft skills gained during the course.	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*, and *RDS*. Also managed credentials using IAM and created 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, R, C, C++, ARM   **Data Analysis Tools:** SQL, MS Excel, Colaboratory, Tableau
ML/AI: TensorFlow, Keras, Numpy, Pandas, Plotly   **Miscellaneous:** Git, AWS S3 & EC2, LaTeX, MS Powerpoint

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.

Research Intern at Every Infant Matters - Certificate   Dec '20 - Mar '21
  Surveyed the need and analyzed markets for future strategies with a focus on low-income groups.