SUSHOBHAN PARAJULI

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EDUCATION

Baruch College – Weissman School of Arts and Sciences New York, NY
Bachelor of Arts in Mathematics | *GPA: 3.5* Expected May 2023
Relevant Coursework: Abstract Algebra, Algorithm and Programming, Calculus, Computer Information Systems, Discrete Mathematics, Financial Mathematics, Fundamental Algorithms, Inferential Statistics, Intermediate Macroeconomics, Linear Algebra, Mathematical Analysis, Mathematical Probability, Mathematics of Data Analysis, Monetary Economics, Stochastic Processes
ECA: *Graphic Designer* at Baruch Himalayan Club, *Business Staff Writer* at The Ticker, *Algorithmic Trader* at Baruch Traders Club

SKILLS

Data Analysis & Visualization: Pandas, NumPy, Tableau, Matplotlib, Seaborn, Dplyr, Ggplot2, Tidyverse, Lubridate, Tidycensus
Machine Learning: Scikit-learn, NLTK, TensorFlow, Hypothesis Testing, Linear Regression
Languages: Python, R, HTML, CSS, SQL, MATLAB
Tools and Frameworks: MS Suite, Google Suite, Jupyter Notebook, R studio, VS code, Linux, Git, GitHub, Flask, PyCharm, LaTeX

DATA SCIENCE EXPERIENCE

Microsoft – Microsoft Research Lab New York, NY
Student, Data Science Summer School Jun. 2022
- Acquired knowledge in Unix bash, Git, R, Statistical Learning, Linear Regression, and Research Replication
- Demonstrated proficiency in data visualization and regression modeling through the successful replication of research and preparation of a report outlining the findings

City University of New York – CUNY Tech Prep New York, NY
Fellow, Data Science Aug. 2021 – May 2022
- Developed hands-on experience in exploratory data analysis, data visualization, machine learning, and neural networks
- Engaged in collaborative projects with fellow students and mentors, building skills in data science and web development
- Demonstrated data science projects through both web apps and presentations, effectively communicating the results

PROFESSIONAL EXPERIENCE

Brooklyn College New York, NY
Research Assistant, Finance NLP Oct. 2022 – Present
- Conduct text analysis of financial statements from a variety of companies, utilizing Python RegEx
- Utilize the Naive Bayes algorithm in the analysis of financial statements

City College of New York New York, NY
Teaching Assistant, STEM Institute Jun. 2022 – Present
- Assist in the teaching of Calculus and Chemistry, providing guidance and feedback to over 100 students while also performing various assistant duties such as mentoring, lecturing, grading, and administrative support

PROJECTS

Grabanswer, *CUNY Tech Prep* Apr. 2022 – May 2022
- Utilized transformers library from an open source platform Hugging Face to import a question answering model using Python
- Designed a web application using Flask, HTML, and CSS to answer questions from a long text without reading the text

Stock Price Movement Predictor, *CUNY Tech Prep* Oct. 2021 – Dec. 2021
- Cleaned a stock news headlines dataset using Python's Pandas library, then imported stocks price data from the Yahoo Finance API and integrated it into the dataset
- Programmed a classification model with a TFIDF vectorizer and Multinomial Naive Bayes algorithm using NLTK and Scikit Learn
- Web Scraped Finviz.com using Beautiful Soup library to gather additional news headlines, which were then used as input for the classification model
- Designed a user-friendly web app using Flask framework, HTML, and CSS to present the results

Portfolio Optimizer, *CUNY Student Investment Challenge* Feb. 2021 – May 2021
- Programmed a portfolio optimizer using Python to gain maximum returns on a portfolio of 20 different stocks
- Imported historical price data of the stocks using Pandas for backtesting, and calculated annual expected return and annual volatility of the portfolio by allocating 5% weight to each stock
- Improved the annual expected return of the portfolio from 34% to 59% while maintaining the volatility of 28% through the calculation of discrete allocations for each stock