

Rohan Mahajan

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EDUCATION

Rice University

Bachelor of Science in Computer Science and Statistics

Houston, TX

Class of 2026

- GPA: 3.69/4.00
- Minor: Data Science
- Relevant Coursework: Linear Regression, Introduction to Program Design, Computational Thinking, Algorithmic Thinking, Calculus I-III, Introduction to Probability and Statistics, Fundamentals of Computer Engineering, Principles of Economics

RELEVANT EXPERIENCE AND PROJECTS

Fake News Detection using Natural Language Processing [GitHub](#)

Westmont, IL

Python

August 2023

- Preprocessed 6,000+ texts by eliminating stop words, tokenizing, and padding data
- Utilized word embeddings from GloVe text file to generate word embeddings matrix specified for texts
- Engineered multi-layered neural network using TensorFlow and effectively predicted validity of news at ~90% accuracy rate
- Employed Term Frequency-Inverse Document Frequency (TF-IDF) Vectorizer to create a matrix of words and their relative frequency
- Applied Logistic Regression to classify data from TF-IDF vectorizer and effectively predicted validity of news with over 92% accuracy

Music Recommendation using Unsupervised Learning [GitHub](#)

Westmont, IL

Python

July 2023

- Conducted extensive data analysis on 100,000+ songs along with their features
- Utilized silhouette and elbow methods to identify optimal cluster count and employed K-means to cluster both song and genre
- Implemented Principal Component Analysis (PCA) to reduce dimensionality in order to visualize clusters
- Recommended songs in both the same song clustering and genre clustering as input song

Discounted Cash Flow Automation with Monte Carlo Simulation

Westmont, IL

Python

March 2023

- Web scraped to find values to be utilized in Discounted Cash Flow valuation
- Ran 20,000+ simulations based on normal probability distribution for variable inputs for model
- Modeled valuations through a plot which illustrated the inputted company's valuation in each simulation and the relative frequency of each valuation

Stock Prediction

Houston, TX

Python

September 2022

- Developed Markov-Chain-based model to predict future performance of stocks
- Implemented and tested model with real-world stock data from \$DJIA, \$GOOG, \$FSLR

Sports Analytics

Houston, TX

Python

October 2022

- Created linear regression model using Least Absolute Shrinkage and Selection Operator to predict future performance of an MLB team utilizing 122 aggregate team statistics collected from 1954 - 2000
- Evaluated model performance using Mean Squared Error and visualized results

LEADERSHIP

Associate Justice

Houston, TX

McMurtry College

August 2023 – Present

- Maintained communications with resident faculty to create and amend policies for student well being
- Represented 400+ fellow students and actively mitigated health and safety concerns
- Adjudicated college disciplinary court cases following extensive deliberations with associates

TECHNICAL SKILLS

- **Languages:** Python, Java, SQL, R
- **Technologies:** pandas, scikit-learn, TensorFlow, NumPy, matplotlib, NLTK, seaborn, plotly
- **Tools:** Jupyter, PyCharm, IntelliJ, Excel, GitHub

Clubs: Biokind Analytics, Computer Science Club, Rice Data Science, Rice Business Society

Hobbies: Derivatives Trading (4 years), Golf, Bodybuilding and Strength Training, Fantasy Football