Ashwin Ramaseshan

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Education

- **University of California, Riverside** — Riverside, California
  Bachelor of Science - Computer Science; College of Engineering — *September 2020 - June 2024*

  Courses: *Operating Systems, Advanced Algorithms and Data Structures, Logic Design, Software Construction, Discrete Structures, Database Systems, Machine Organization, Big Data Management, Compiler Design*

Experience

NFL Sherpa Fantasy Analytics — Remote
Intern (Full-time) — *August 2020-September 2023*

- Developed a player performance clustering algorithm using K-means, categorizing players into distinct performance groups based on key attributes, enabling more targeted insights for team strategies.
- Utilized a variety of algorithms, including decision trees, random forests, neural networks, and regression models, to achieve accurate predictions for over 1000+ players
- Implemented a Random Forest algorithm for predicting game outcomes, achieving an accuracy of 82.52020-2021 regular season.

Research Assistant- Imperial College London Business School — Remote
Intern (Full-time) — *August 2023-Present*

- Leveraged NLP techniques to analyze conversation dynamics, identifying key features such as word count, turn-taking behaviors, and linguistic markers of politeness, which predict conversational flow and success in networking contexts.
- Developed and validated a machine learning model to assess conversational flow from textual data, achieving significant predictive accuracy by incorporating features like positive emotion, question types, and interaction patterns, demonstrating the ability to improve interpersonal communication through data-driven insights.

BedLabs-Research Assistant — In-Person
Research Assistant (Full-time, University of California,Riverside) — *August 2023- March 2023*

- As a research assistant under Professor Hasselhuhn, I am involved in processing, cleaning, and analyzing over 6000 earnings call transcripts using advanced Natural Language Processing (NLP) techniques for Fortune 1500 companies.
- Developed a custom sentiment analysis model to extract specific words in the transcripts as well as sentiment/tone scores.
- Tokenized data utilizing the 'bing' sentiment lexicon for tone assessment, and crafted a custom sentiment scoring algorithm.

Projects

- **NBA Rookie Prediction Project(Machine learning)**: I created this project to analyze and predict how rookies from the 2022 NBA draft class would preform during their first NBA season. I used machine learning models such as K means clustering, linear regression and random forest to represent and effectively predict the performance of each rookie. This project was fully coded in R language and I used HTML to create the website. **Skills Utilized- Random Forest · Cluster Analysis · Applied Machine Learning · Data Visualization · dplyr · HTML · R Programming**
- **Spotify Weekly Playlist Archiver (API)**: The Spotify Weekly Playlist Archiver API addresses the transient nature of Spotify's weekly playlists, which only last for a week, causing frustration as favorite tracks vanish. Seamlessly integrating with your Spotify account, this API extends the playlist's lifespan by generating a duplicate playlist with the same songs. Its straightforward endpoint facilitates integration into applications or scripts, utilizing OAuth 2.0 for secure authentication. **Skills Utilized- Algorithm Design · Authorization frameowrk · API Development · Python (Programming Language) · Algorithm Design · Authorization framework**

Publications

- **Article: "A Prediction of the 2022 NBA Draft Class"**: Published by Towards Data Science-September 2022.

Certifications

- IBM Applied Data Science Professional Certificate - August 2023:

Skills Summary

- **Languages**: Python, C++, Java, SQL, Bash, R, Assembly, C, Latex, Verilog
- **Frameworks**: Random Forest, Factoextra, TensorFlow, Dplyr, Tidyverse, Ggplot2
- **Tools**: GIT,CSS, ApacheSpark MATLAB, MySQL, AWS, Microsoft Office, PyCharm, Photoshop
- **Technologies**: RStudio, Jupyter Notebook, Tableau,Linux, Autodesk Inventor(CAD)