JESSE MUSA

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EDUCATION

The University of Texas at Dallas - Richardson, TX
Major: Computer Science Bachelor of Science | Minor: Statistics | Expected Graduation: May 2024
Computer Science GPA: 3.8 | Cumulative GPA: 3.677 | Jonsson Academic Success Scholarship Recipient

EXPERIENCE

Artificial Intelligence Society AIM *February – April 2022*

Data Scientist

- Collaborated with Artificial Intelligence Society to make a *real time* emotion detector website using AWS services
- Implemented AWS cloud services such as Sagemaker and EC2 to create a deep learning Convolutional Neural Network (CNN) using TensorFlow Keras.
- Trained on 35,000+ images classified into 7 different emotions from the "Face expression recognition" dataset on Kaggle to achieve a 65% accuracy.
- Deployed the CNN Model from AWS into a python flask web application able to predict emotion from multiple faces simultaneously in real time from a webcam

ACM Research September – November 2021

Research Assistant

- Researched alongside Dr. Bhavani Thuraisingham to examine the effect of modern-day social media on companies' financial success
- Developed a custom web scraper to collect 100,000+ #Neftlix Tweets from the time frame of 09/2018 - 09/2021 using Puppeteer then cleaned and applied sentiment analysis using Vader
- The sentiments of our tweets and the stock prices gave us a correlation of 0.75.

PROJECTS

Airbnb Nightly Price Recommendation Website | React.js, Node.js, Flask, BigQuery, SQL, XGBoost July – Current

- Parsed through 100,000+ Airbnb posts keeping only the highly rated and regularly used posts
- Queried "Area Deprivation index" for each American zip code using SQL on public BigQuery Database
- Trained an XGBoost model to achieve a mean absolute error of $152
- Developed a React frontend where needed post values were inputted; Given address was Geolocated into coordinates.
- Implemented a Flask backend REST API to connect to the React frontend and host the exported XGBoost model.

Predicting Effective Arguments | Scikit-Learn, NLTK, Matplotlib, Logistic Regression May – June 2022

- Competed in a Georgia Tech Kaggle's competition with the purpose of giving 6th – 12th graders enhanced and unbiased feedback on their argumentative texts.
- Trained a sklearn Logistic regression model on 36,000+ argumentative texts classified into "Ineffective", "adequate" and "effective" to achieve an accuracy of 67%.

Path Finding and Maze Generation Website | P5Js, JavaScript, Raw HTML and CSS December 2021 - January 2022

- Developed an interactive website that shows a visual representation of A*, DFS and BFS pathfinding algorithms on a maze generated using the Randomized depth-first search maze generation algorithm.
- Created the website using raw HTML and CSS and the pathfinding algorithm was displayed using the p5 JavaScript library.

RELEVANT SKILLS

- Languages: Python, JavaScript, SQL, C++, Java, Lua, C#, C
- Libraries: Pandas, TensorFlow, Spacy, NLTK, Matplotlib, Imblearn, NumPy, Scikit Learn
- Framework & Tools: React.js, Flask, BigQuery, Git, Juypter Notebook, VS
- Classes: Data Structures and Algorithms, Unix System, Probability and Statistics in Computer Science