RATIN KUMAR

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@RatinKumar

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Education

Graphic Era Hill University, Dehradun, India **2021 - present**
- Bachelor of Technology (B. Tech) in Computer Science | CGPA: **8.3/10**

Paramount Academy, Muzaffarpur, India **2020**
- *CBSE (Class XII), Aggregate: 70.8%*

Paramount Academy, Muzaffarpur, India **2018**
- *CBSE (Class X), Aggregate: 78%*

Skills

Proficient in C++, Data Structures and Algorithms.

Familiar with C, Java, Python, Machine Learning & AI, SQL, Oracle, HTML, CSS, JavaScript, Jupyter Notebook, Linux.

Frameworks and Libraries:- TensorFlow,Scikit-learn, Numpy, Pandas, Matplotlib.

Projects

Chat With Websites - LangChain Chatbot with Streamlit GUI **Apr'24**

This project is basically to build a chatbot capable of interacting with websites,extracting information, and communicating in user-friendly manner.It leverages the power of LangChain and integrates it with a Streamlit GUI for an enhanced user experience.
- The chatbot uses the latest version of LangChain to interact with and extract information from various websites.
- Compatibility with models like GPT-4,Mistral,Llama2 and ollama.In this code I have used GPT-4.
- A clean and intuitive user interface built with Streamlit.
- Entirely coded in Python.

Emotion Detection using Voice **Dec'23**

This project can recognize the 7 emotions (anger, happiness, disgust, neutral, fear, sadness, surprise) of a person by taking his/her voice as an input.The emotion is detected on the basis of pitch and tone of a person.
- Used Mel-Spectrogram to extract frequency from my ".wav" file in the form of spectrogram so that it can be trained on CNN model.
- CNN and Transfer Learning is used for training the model.
- For testing input is given by own side, for recording the voice python with Java Script is used.

Sentiment Analysis on Hotel Reviews **Jun'23**

Conducted a comprehensive sentiment analysis project on hotel reviews.
- Natural Language Processing (NLP) techniques were used to analyze hotel reviews and develop a sentiment analysis model capable of accurately classifying sentiments as positive, neutral, or negative.
- Robust feature extraction techniques, including Doc2Vec and TF-IDF, were used to train a Random Forest Classifier. The model's performance was then evaluated using ROC and Precision-Recall curves.
- To enhance the interpretability of our findings, we included impactful visualizations like word clouds illustrating review data and sentiment distributions. Ultimately, enabling the hotel to make informed decisions based on guest sentiments.

Academic and Extracurricular Achievements

- Participated in a 24-hour hackathon, demonstrated strong problem-solving and coding abilities by working collaboratively within a diverse team to deliver innovative solutions within stringent time constraints.
- Played an integral role in the **Head of Discipline committee**, demonstrating effective leadership and organizational skills by leading and coordinating diverse projects and events.
- Demonstrated dedication to my coursework and continuous improvement in academic performance, with a focus on mastering challenging subjects and overcoming obstacles through perseverance and hard work.