Project Title : Sound Emotion Recognition

Project Details:

* Speech Emotion Recognition, is a Classifier model to recognize human emotion speech from an audio file. This is capitalizing on the fact that voice often reflects underlying emotion through tone and pitch.
* This project takes a pre-recorded audio file and a few standard preprocessing is applied on the file that includes noise reduction, stretching and along with it many standard feature extraction methods like RMS, ZCR, MFCC etc.,
* The model used is RandomforestClassifier and showed an accuracy approximately 80%.
* The project is implemented using a python library- ‘streamlit’ , which has a web page interface.

#### Datasets used in this project:

* Ryerson Audio-Visual Database of Emotional Speech and Song (Ravdess)

Challenges & Solutions:

* Audio preprocessing was something new to me. I had to find the library for the same purpose.
* And understanding the working took a little time.
* When i completed the project , i received a low accuracy. The problem was with low number of data extraction methods and preprocessor techniques. When that count was increase the model spiked its accuracy approximately 80%.

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References: Kaggle

Visuals:

