SPEECH BASED EMOTION RECOGNITION USING MACHINE LEARNING

A Main Project Abstract

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ABSTRACT

Speech Emotion Recognition (SER) plays an indispensable role in intelligent speech application. SER, is the act of attempting to recognize human emotion and affective states from speech. There are several modalities for expressing human emotions like body-posture, facial expression & voice. The human voice can be characterized by several attributes such as pitch, timbre, loudness, and vocal tone. It has often been observed that humans express their emotions by varying different vocal attributes during speech generation. This is capitalizing on the fact that voice often reflects underlying emotion through tone and pitch. SER is tough because emotions are subjective and annotating audio is challenging.

The proposed approach is based upon python modules like PyAudio, Librosa for audio input and analysing it and the MLP Classifier for Feature Extraction and Classification. For evaluated models of different experiment settings reports accuracy, f-score, precision and recall. However, the performance of previous work has been restricted by neglecting the interaction of different frequencies, since the converged communication of frequency is also critical for us to generate accurate emotion feature representations. The proposed method includes the previously neglected frequencies which can lead to accurate prediction of emotions.

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