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Emotion Detection via Voice and Speech Recognition

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Abstract: In human-computer interaction, spoken emotion detection is essential yet difficult. Researchers extract emotional information from speech sounds using a variety of analytic techniques. Effective communication requires an understanding of human emotions, which range from happiness to astonishment and beyond. Classification, pre-processing, feature extraction, and pattern recognition are all involved in emotion recognition. While some approaches take into account a continuous spectrum, others concentrate on a single-dimensional representation. The study of emotional cognition benefits from the use of technologies such as fMRI, which facilitate the distinction between positive and negative emotions. The intricacy and significance of identifying emotions in speech are emphasised in this abstract, underscoring the necessity of sophisticated methodologies in the field of human-computer interaction research.

Keywords: Deep Learning, Emotion Recognition, RAVDESS Dataset, SK learn, Speech Feature, SVM Classification, Real-time emotion detection, Audio feature engineering, Sentiment analysis, emotional intelligent system.

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