

## Introduction

Main issue is feature extraction methods

## Main Objectives

1. To build a system capable of detecting emotion in speech with an accuracy greater than 50%.
2. To compare how different frequency windows affect emotion detection in speech.
3. To develop an application which applies the trained model in real time.

## System Overview

- 1 Explanation on process followed

## Development Process

? Include

## Filtering

Number of band-pass filters employed on dataset. Used to explore whether frequency has an effect on emotion detection accuracy \*Show four filtered waves\*

## Feature Extraction

Speech data concatenated and separated into two-second files.

Mel-Frequency Cepstral Coefficients (MFCCs) extracted from speech files.

Using 15 coefficients.

\*Show Spectrogram\*

\*SHOW 4 MFCCs\*

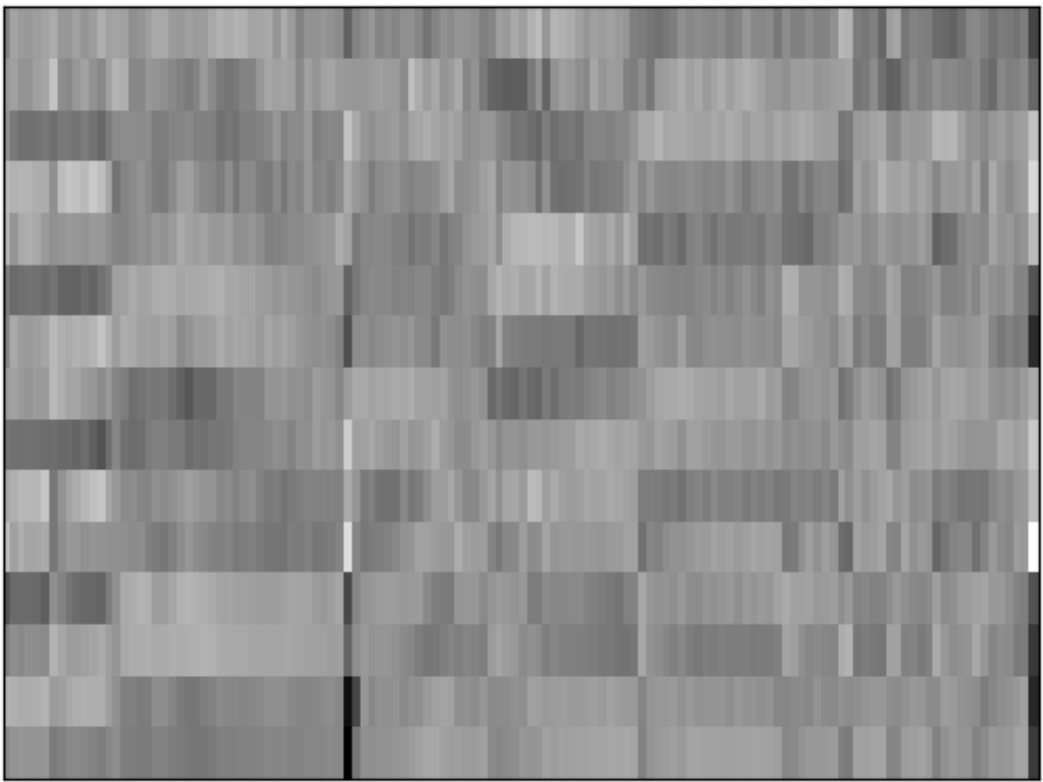


Figure 1: Example of generated MFCC

## Classification

CNN used for classification. Used VGG architecture as not used before ? Technical - TensorFlow, etc

\*CNN Diagram\*

## Results

\*Table of Results\*

## UI

\*Screenshot of UI\*

## Conclusions

## References

[1] Christopher Columbus. *How I Discovered America*. Hispanic Press, Barcelona, 1492.

[2] R. J. Green, U. P. Fred, and W. P. Norbert. Things that go bump in the night. *Psych. Today*, 46:345–678, 1900.

[3] Kelly James, George Harris, Jr., and Wilby Wollops. American independence and magnetism. *Revol. Tracts*, 32:34–55, 1776.

[4] T. P. Phillips. Possible influence of the magnetosphere on American history. *J. Oddball Res.*, 98:1000–1003, 1999.

[5] J. G. Smith and H. K. Weston. Nothing particular in this year’s history. *J. Geophys. Res.*, 2:14–15, 1954.