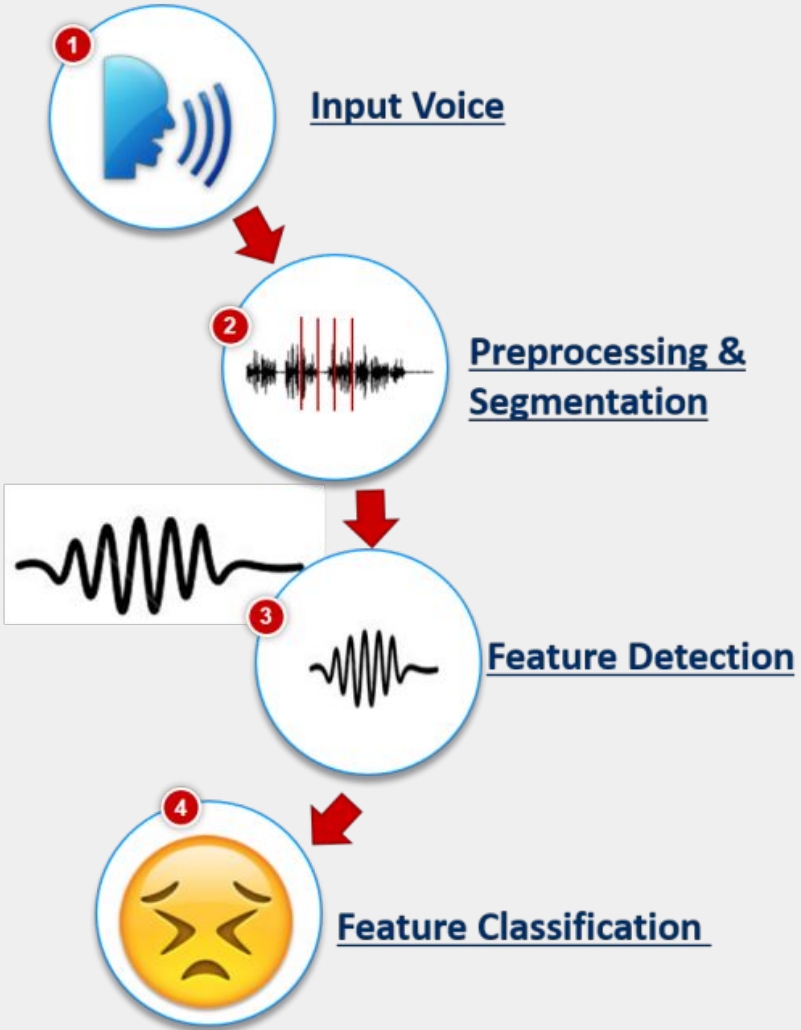
Voice Based Emotion Detection

Team Emoticons

Automatic Voice Analysis



Unique Selling Points (USPs)

To analyze any and all audio related to Emotion

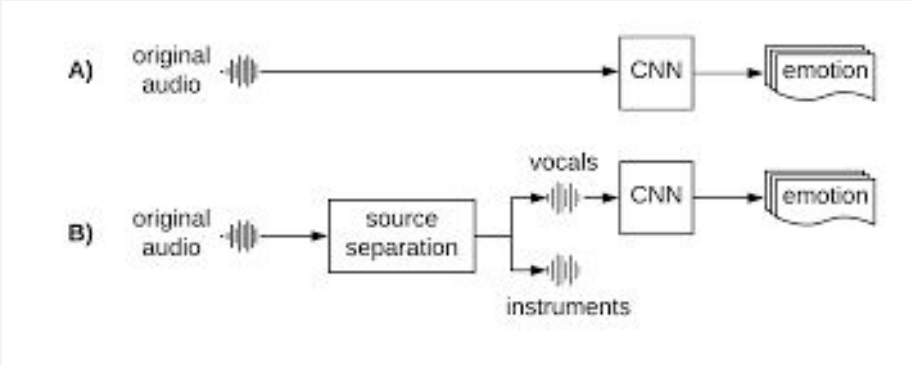
Some of the Potential Areas where this can be applied are:

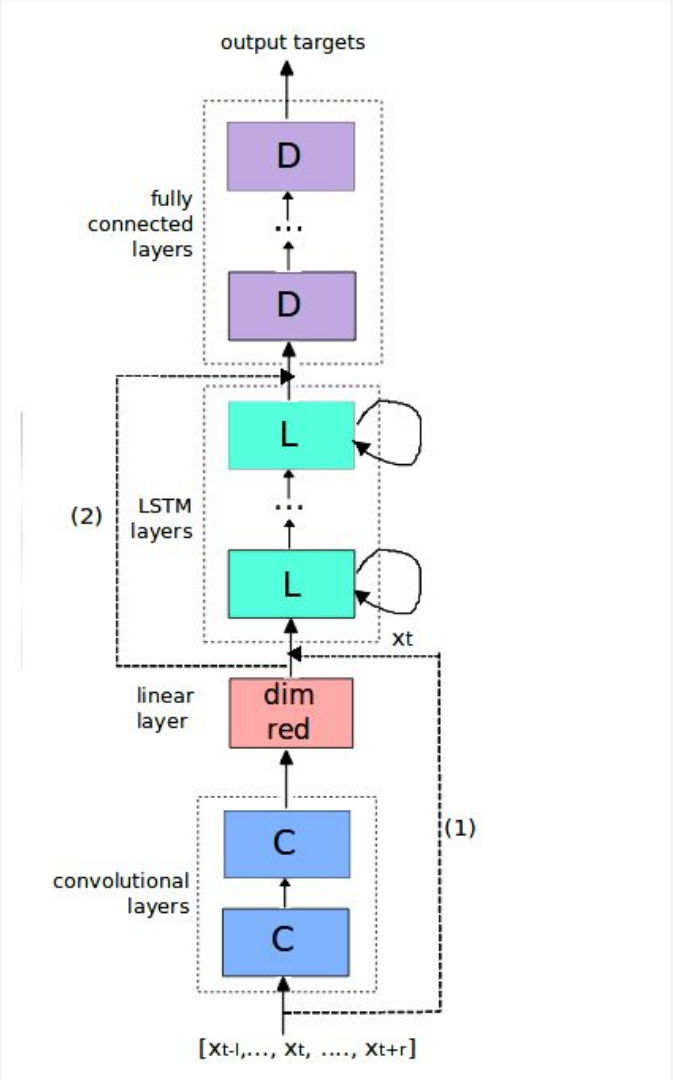
- Analyzing Personal Mood on a daily basis by using Conversational Data
- Using Mood Analysis for Custom Suggestions in Third Party Services
- Analyzation of Shopper Experience from Customer Conversation
- Automatization of Customer Care Call Rating
- Monitoring of Mental Health Status of Patients in Hospitals for Long Periods of Time

Minimum Viable Product (MVP)

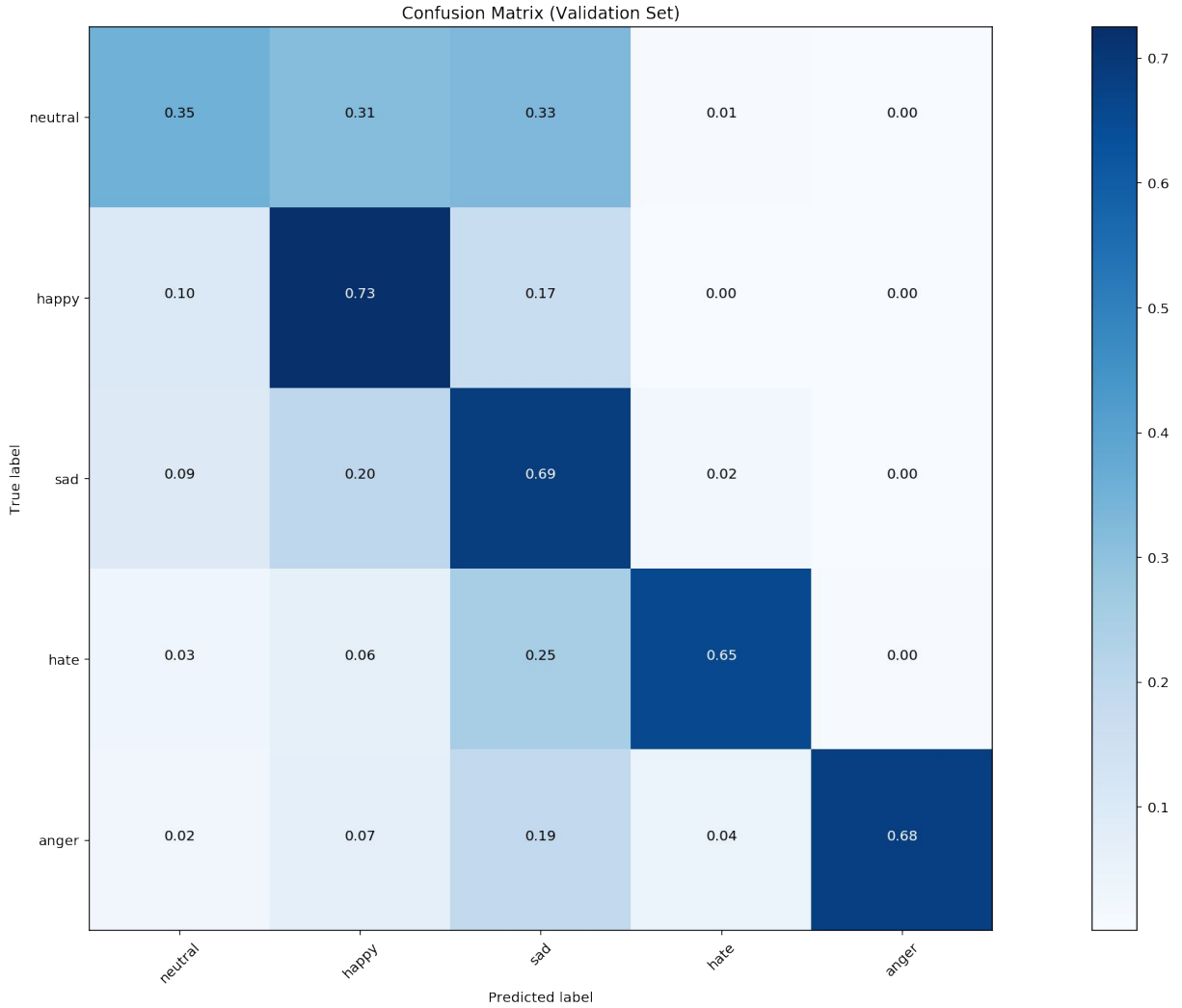
- This will provide the best Customer Support Experience , as there would be minimal support from Customer side , which will require only a single ‘key’ to start and predict emotions.
- This is a minimalistic UI which doesn’t require opening WebApp everytime , and automatically keeps track of progress in background and displays in a trackbar.
- This service can be integrated with other apps to improve productivity.
    - For ex. If your mood in the day was happy, Netflix can show you corresponding recommendation.
- Moreover , there is no data breach, as the audio cache is deleted as soon as prediction is made.

Model Architecture





CONFUSION MATRIX



Technical Innovation

- Our Model is very robust and handles external noise very well because it first converts audio to text using state of the art models and then Emotion is detected from the text.
- Our Model is trained on casual and noisy conversation so it will work properly in real time situations.
- There is no model readily available in the market today for Emotion Analysis and we aim to bridge the existing gap.

Feasibility

- Deployment as an Application is straightforward due to minimal dependencies in the app.
- Back-end processes of the application are so light weight that it can run even on 100 MB RAM device.

Scalability

- The future opportunities to scale up and diversify this service are a lot.

- For example, this service can be used to take Targeted Advertising to a personal level never seen before.

- Services such as Netflix, Spotify and E-Commerce Giants like Amazon can use our service to know about the mood of customers on a real time basis and suggest their service or products which they sell to increase their conversion rates on a mass-level.

Business Model

Our Online Application can be used to generate Revenue from a variety of sources. Some of these include:

- It can be used a Automated Quality Control Tool for any company offering a service as their product and looking to maintain their Quality Standards based on feedback of Customers and if the company takes timely action, it can save significant amount of revenue.
- It can serve as Quality Assurance Tool for Companies whose products are sold in a showroom and want a real time analysis of the service they are offering.
- Our Service can be used to identify the mood of customers and this information can be used by music streaming services such as Spotify to recommend Music based on the mood of the Customer and we will be offering our services at a competitive price.

In any of our Revenue Generation Services, the main incentive would be that the capital investment required would be very minimal and the expected rate of return on it would be high since we are dealing with commercial services.