# SPEECH BASED EMOTION PREDICTION

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#### Workflow for Text dataset

Processing Raw Data of dataset

Abstracted statements mapped to emotion labels

Emotions are labelled

**Abstraction** 

## Workflow for text model

Model Model **Processed** (BiLSTM) **Dataset Probability output** 

#### Workflow for Audio Dataset

Creation of dataset

**Raw Audio** 

Pitch features and intensity extractions from audio by Praat

Conversion of dataset into .csv format

### RAW FORM

Angry
Fearful
Нарру
Neutral
Sad
Suprised

∨ Last month	
YAF_which_fear	1
YAF_whip_fear	1
YAF_white_fear	1
YAF_wife_fear	1
YAF_wire_fear	1
YAF_witch_fear	1
YAF_yearn_fear	1
YAF_yes_fear	1
YAF_young_fear	1
YAF_youth_fear	1
YAF_thought_fear	1
YAF_thumb_fear	1
YAF_time_fear	1
YAF_tip_fear	1

#### PROCCESSED FORM

4	А	В	C	D	E	F	G	Н	
1	Mean Pitch	Median Pitch	Min Pitch	Max Pitch	Pitch Range	Variance	Slope	Intensity	Emotion
2	162.668574	151.9171479	114.3465	265.0279	150.68141	1645.125	-0.56927	14.12653	1
3	253.932128	260.2239812	101.5345	460.3678	358.83329	4624.478	-1.75576	-22.7632	1
4	114.550788	101.0155734	82.16788	550.9076	468.73969	4774.557	-0.56606	27.19691	1
5	272.327763	264.544137	102.7405	376.3553	273.61486	3550.782	-1.15316	-20.8078	1
6	208.088551	173.3325905	114.5805	535.5296	420.94902	8103.378	0.321407	31.10632	1

## Workflow for Audio Input

Model Classification **Created Dataset** model (XGBoost) **Probability of** 

output

Enter the following numerical feature values:

Mean Pitch: 315

Median Pitch: 250

Min Pitch: 179

Max Pitch: 592

Pitch Range: 410

Variance: 13567

Slope: -1.1

Intensity: 58.4

Predicted Emotion Probabilities:

Emotion 0: 0.0005

Emotion 1: 0.0047

Emotion 2: 0.0006

Emotion 3: 0.9998

Emotion 4: 0.0010

Emotion 5: 0.0033

#### **FUTURE WORK:**

 Creating a model to assign the weights for prediction of emotion from text and audio

