CLOUDY STUDIO

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AUDIO EMOTION ANALYSIS (PROJECT PROGRESS)

Cloudy’s OS Members

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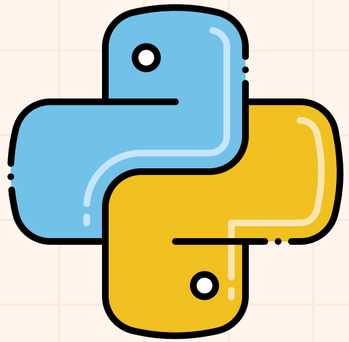
```
emotion_map = {
    'โกรธ': 'angry',
    'เศร้า': 'sad',
    'สุข': 'happy',
    'หงุดหงิด': 'frustrated',
    'ปกติ': 'neutral'
}
```

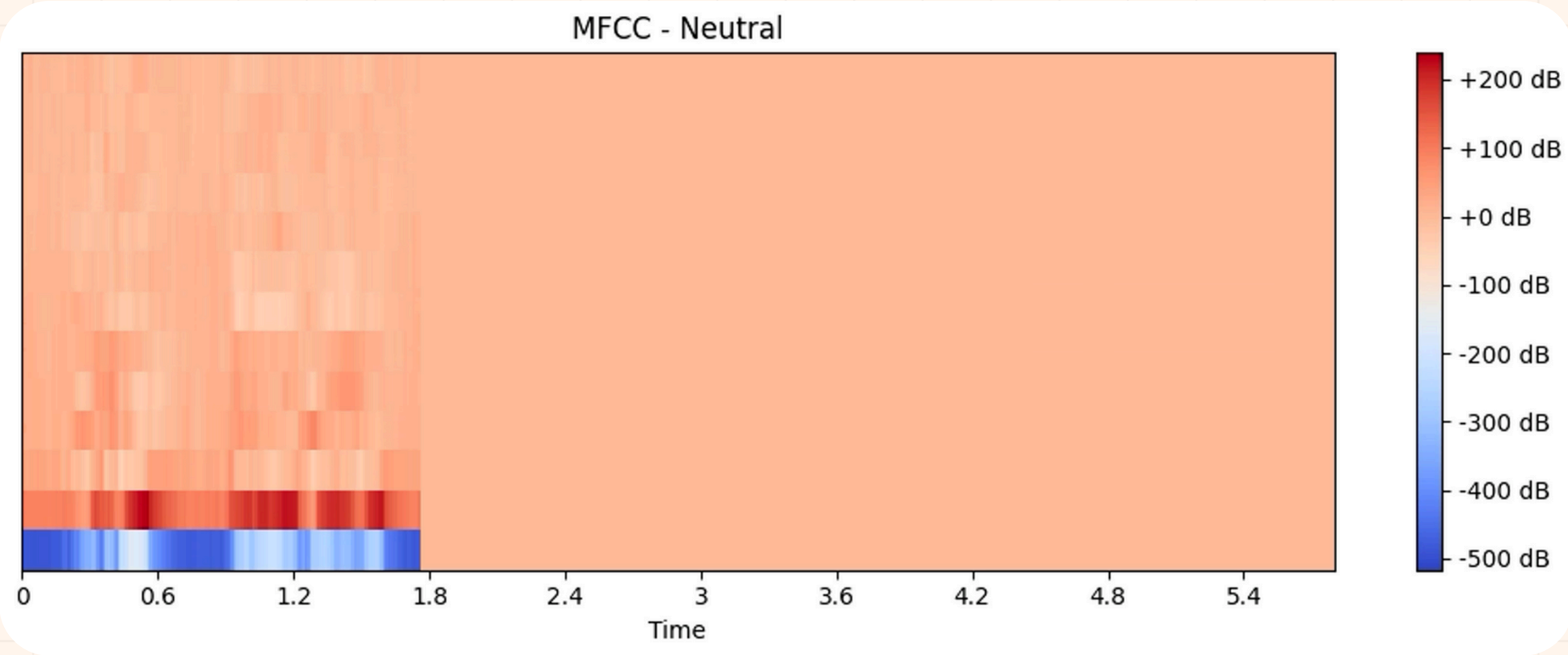
EMOTION FROM DATASET

PYTHON LIBRARY

- numpy
- pandas
- librosa
- seaborn
- soundfile
- tqdm
- scikit-learn



TESTING FEATURE EXTRACTION ON: S001_CON_ACTOR001_IMPRO1_1.FLAC



EXAMPLE ABOUT DATASET

s001_con_actor001_impro1_1.flac

- s001: Studio recording session 1
- con: Condenser microphone
- actor001: Actor ID 001
- impro1: Improvisation session, scenario 1
- 1: First utterance in that scenario

So, the actor is actor001.

According to the dataset description, odd-numbered actors (like 001) played the role of "Actor A" in the improvisation scenarios.

Processed 27854 metadata entries.

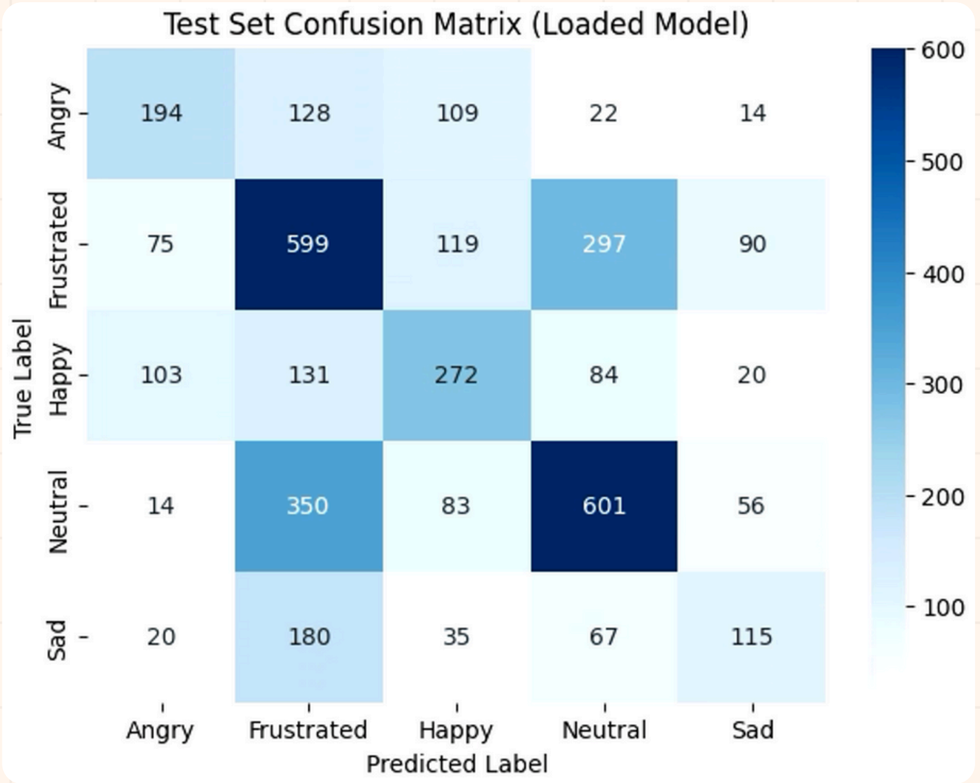
Found **25185** audio files matching target emotions

Emotion Counts:

- **Frustrated** : 7864
- **Neutral** : 7359
- **Happy** : 4070
- **Angry** : 3111
- **Sad** : 2781

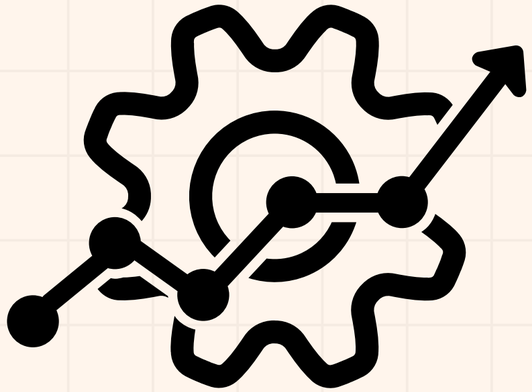
Test Accuracy (from loaded model): 0.4714

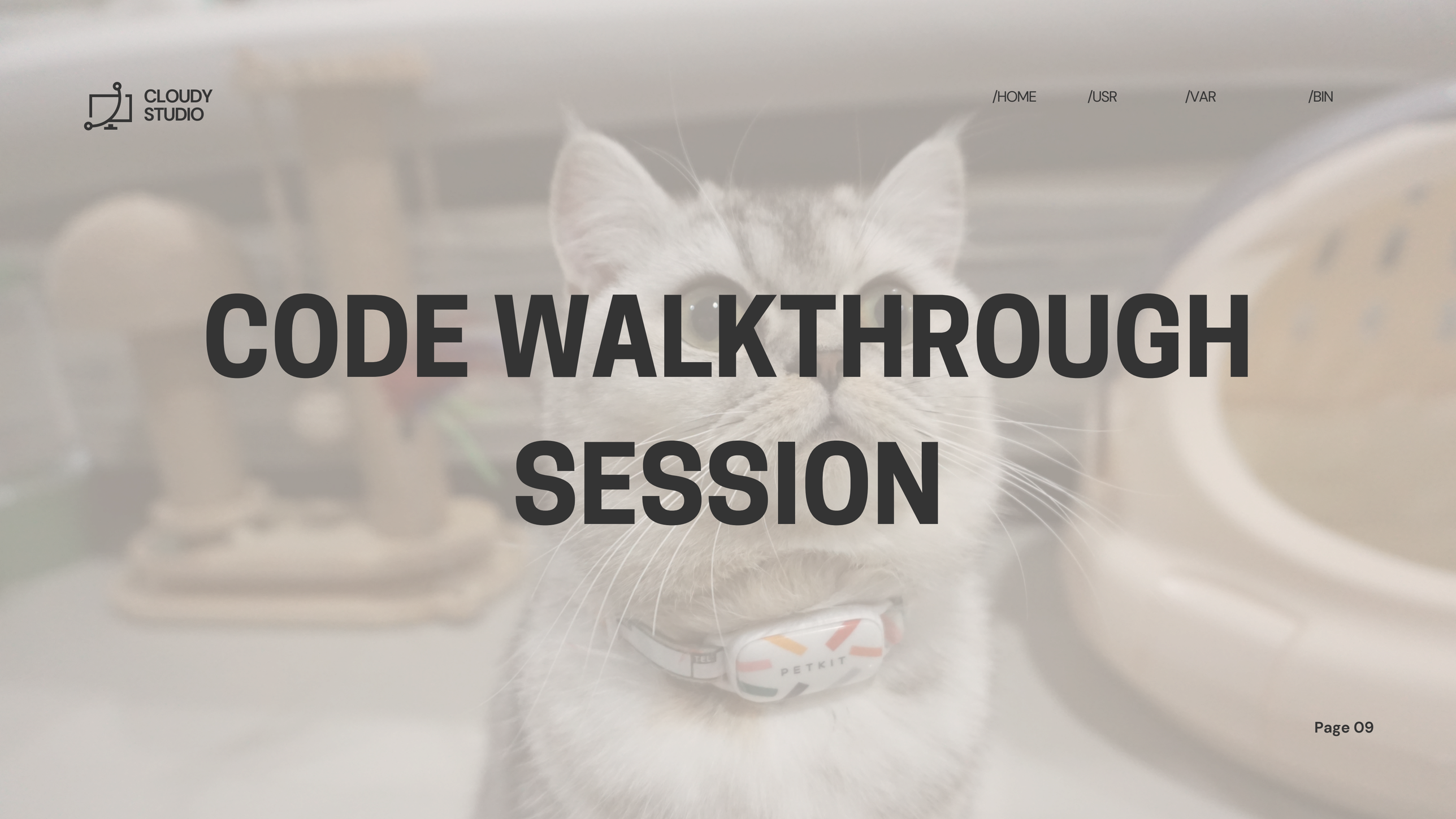
	precision	recall	f1-score	support (num of samples)
Angry	0.48	0.42	0.44	467
Frustrated	0.43	0.51	0.47	1180
Happy	0.44	0.45	0.44	610
Neutral	0.56	0.54	0.55	1104
Sad	0.39	0.28	0.32	417
accuracy			0.47	3778



We will try to optimize

- Using CUDA for audio analysis
- Using Python threaded
- Using Python multithreaded
- Speed of Read and Write data





CODE WALKTHROUGH SESSION

THANK YOU