SPEECH EMOTION RECOGNITION

Using Python to Identify User Sentiment

By Nicholas Wertz

Meta

Meet Your Data Scientist

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Agenda

Agenda

Business Problem

Data

Methods

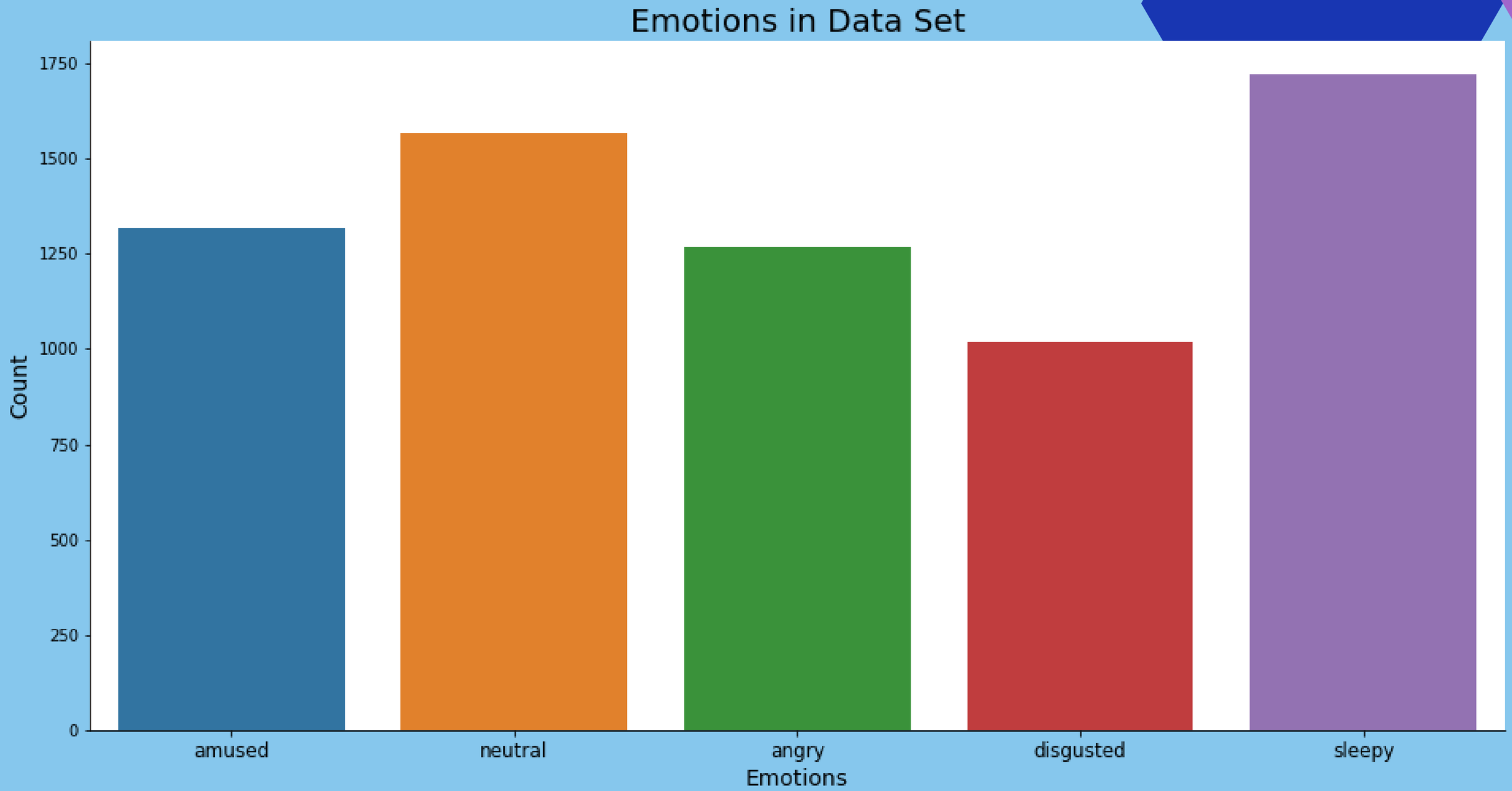
Modeling & Results

Proposals & Future Considerations

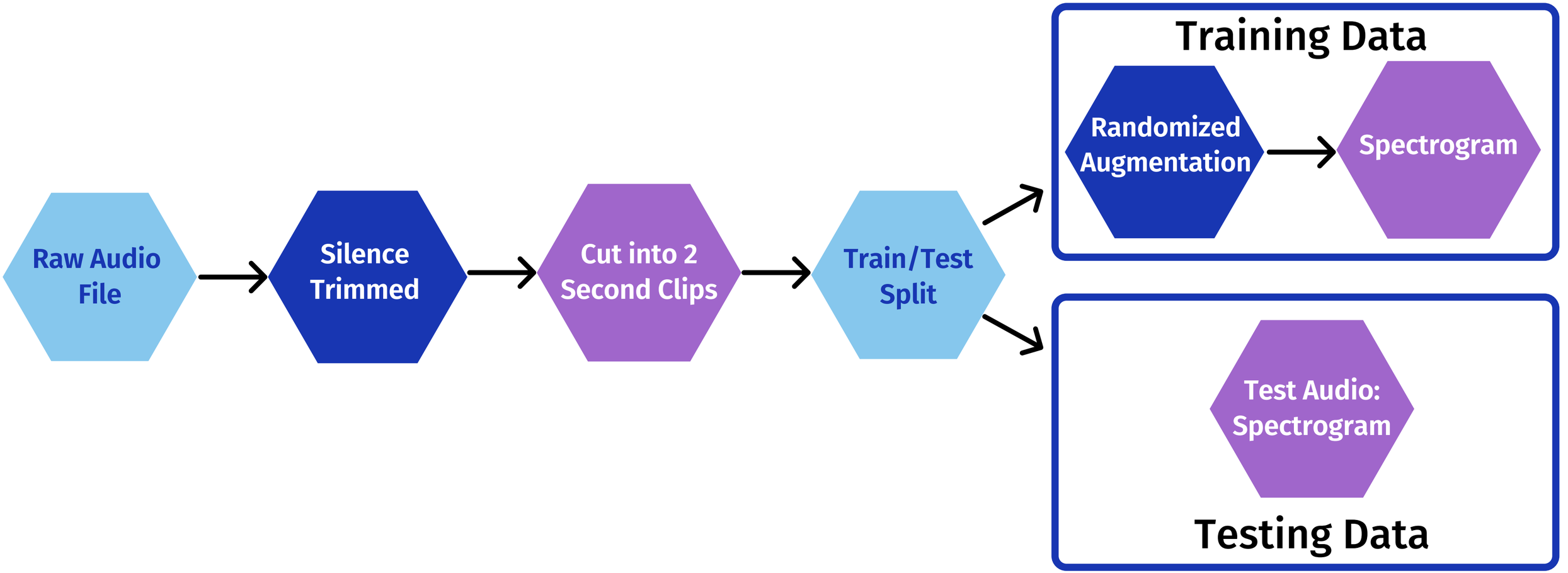
How Can We Engage Users?

Track user's emotional state from their audio

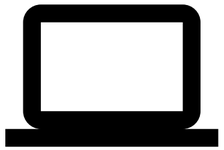
Data Understanding



Data Preparation Method



Modeling & Results



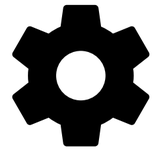
Convolutional Neural Network

5 Emotional Classes

10 Cycles

74% Accuracy

Minimal Loss



Class Performance

Sleepiness F1 = 84%

Neutral F1 = 59%

Recommendations

- Animate user avatar faces
- Target less satisfied users
- Special offers to keep users engaged for longer

Future Considerations

- Update with User Audio
- More Accents
- More Languages

THANK YOU!

ANY QUESTIONS?

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