Detecting emotions from audio

Part of the SMART teddy-bear initiative

Team Emo

Julian Groen
Zahir Bholai
Koen de Bruijn
Jaap van Gestel
Breno van Tricht
Yuri Lamijo

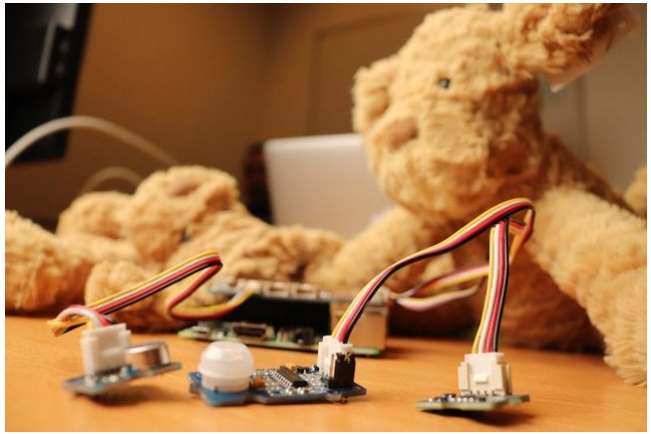
Table of contents

1. Recap
2. Results CNN
3. Next Steps

Recap

Smart teddy bear project

-



Recap previous presentation

- Started with machine learning models and 15 different scenarios
- Varying results. Possible overfitting. Literature recommended CNN.
- Try different scenarios on the CNN

Results CNN

Methodology

- New datasets
  - TESS
  - SAVEE
- Combined dataset
- Created different scenarios
  - Classification of emotions
  - Classification of group emotions

Results

Emotion Group	Highest Precision	Log Spectrogram
Positive (Happy), Neutral (Neutral), Negative (Angry)	86,19 %	V
Happy, Neutral, Angry, Sad	80,76 %	V
Happy, Neutral, Angry, Sad	69,00 %	X

Results are based of a combined dataset containing: Crema-D, Ravdess, Savee & Tess

Next steps

Steps

- Group emotions and evaluate results per group
- Build functional prototype
- Work on research paper

Any questions?