

# FreeSpeak

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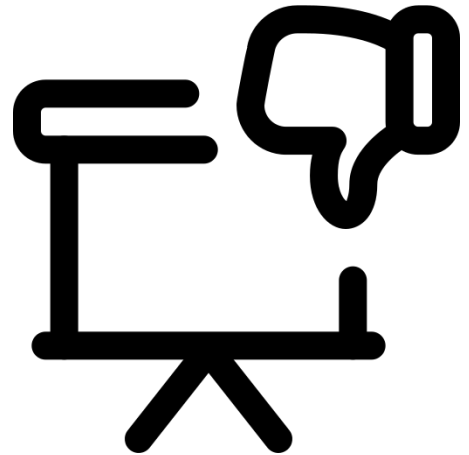
# Our Journey

# How it began...



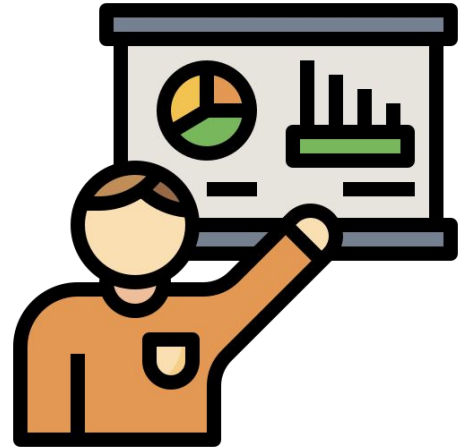
## Great ideas, but...

- They could not be presented properly because of lack of presentation training and confidence
- This lead to the ideas not being inspiring enough to be accepted  
→ **Huge loss of potential!**
- We ourselves noticed the same problem with us



## We concluded...

- The current education system has a major flaw in this area
- No presentation/soft skill training
- Grades for presentations are based on content
- No feedback on how to behave in public during a presentation



# So, we created a virtual coach that...

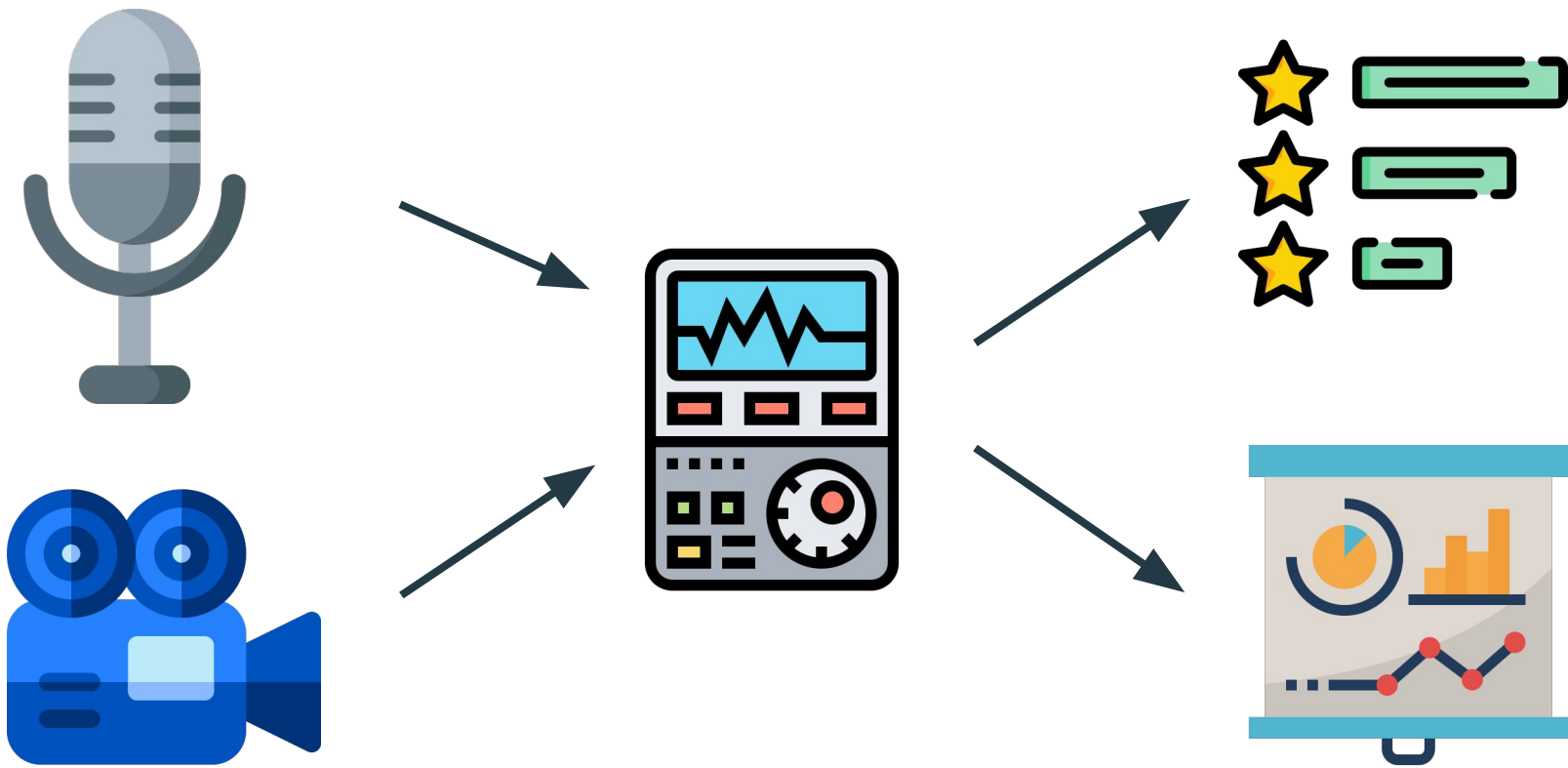
- Gathers data
- Analyzes and evaluates most important aspects of a presentation (e.g. body language, emotions)
- Provides individual feedback





# Implementation





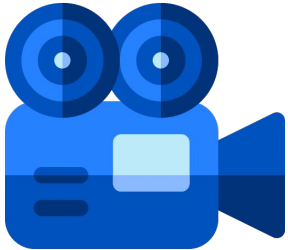




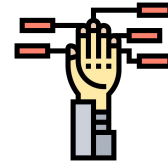
Speech to Text



Natural  
Language API



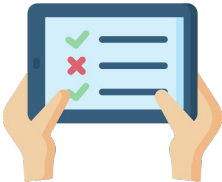
Emotion  
Detection



Gesture  
Tracking

## Solution Design Phase

- Brainstorming the target group
- Conducting interviews and surveys in university
- Asking experts about their opinions
- Summing up main weaknesses during presenting



## Implementation Phase

- Implementing each feature individually
- Testing each feature individually
- Integrating everything in the project



## Verification Phase

- Gaining feedback of first prototype
- Improving solution based on feedback

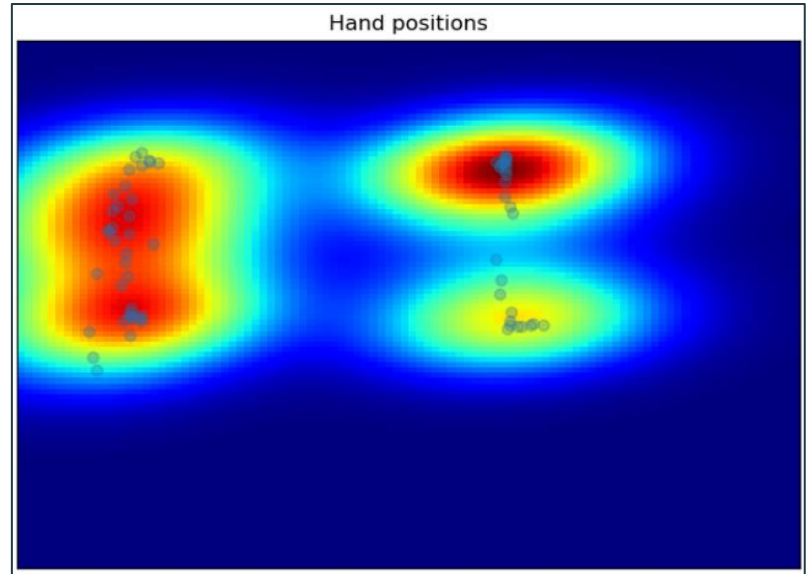




# Features

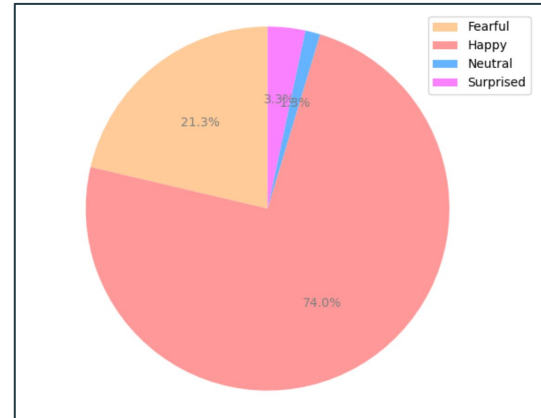
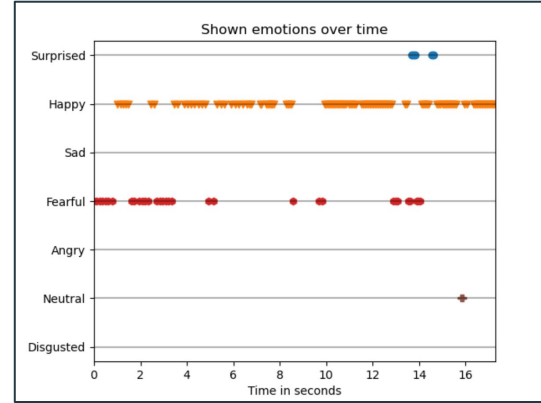
# Hand Position Tracking

- Detects hand movements in real-time
- Saves the coordinates of hand positions
- Data adjustment for better analysis



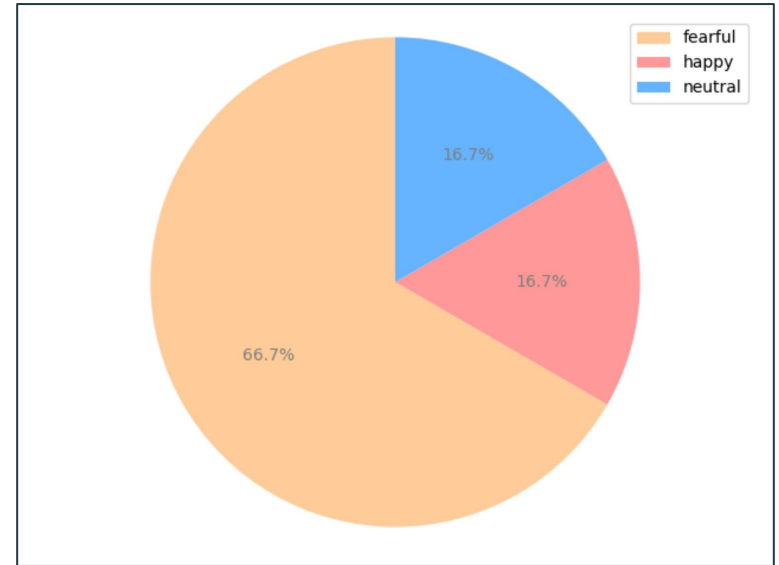
# Facial Expression Detection

- Detects facial expressions in real-time
- Saves detected facial expressions
- Data adjustment for better analysis



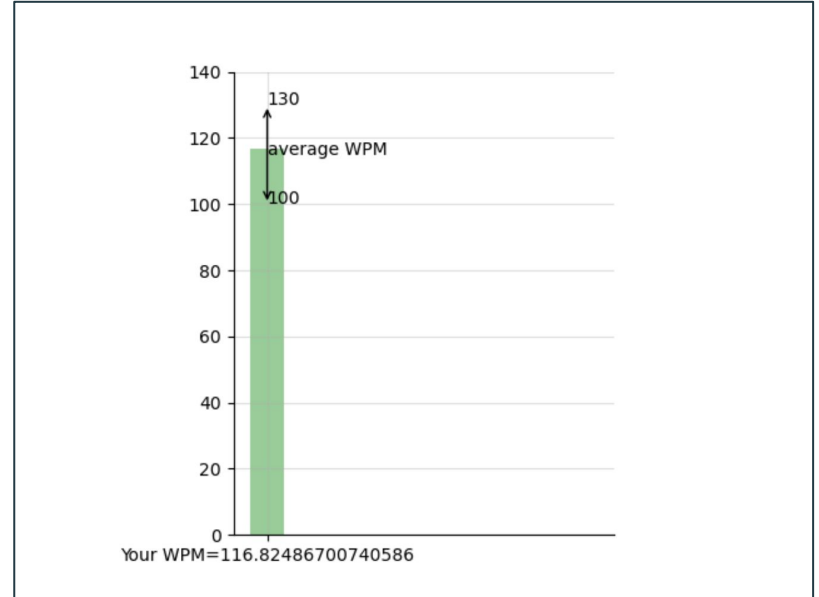
# Voice Emotions Analysis

- Analyzes voice emotions based on the recorded audio
- Data adjustment for better analysis



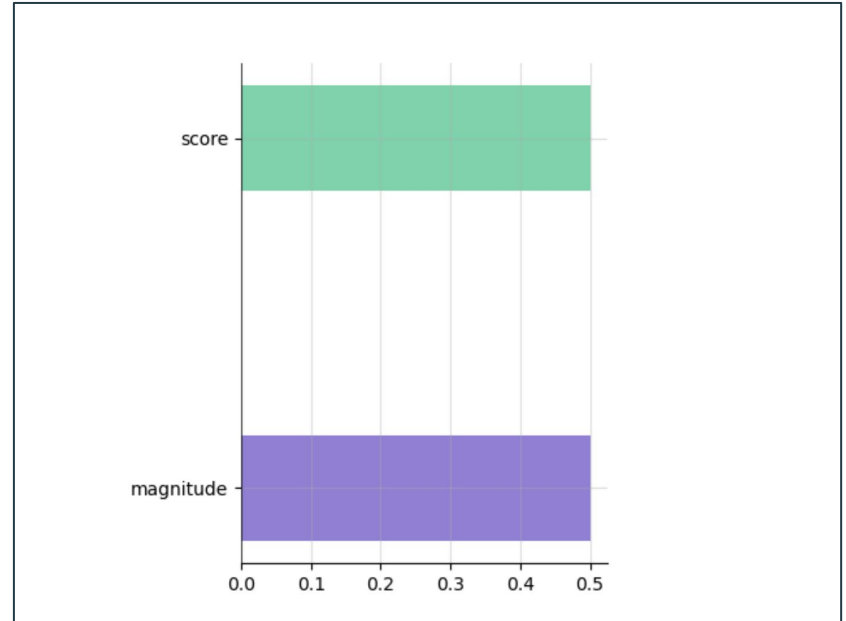
# Talking Speed Analysis

- Uses words per minute technique (WPM) to analyze speaking speed



# Text Sentiment Analysis

- Transforms speech into text in real time
- Analyzes content of the speech







# Our Potential

01

## Provide Biggest Impact

- By starting to teach people as early as possible
- Improve their presentation skills and general communication skills

02

## Confidence Boost

Children will lose their fear of speaking and be more confident

03

## Mental Health

Prevent some mental health problems, such as social awkwardness



# Future Plans

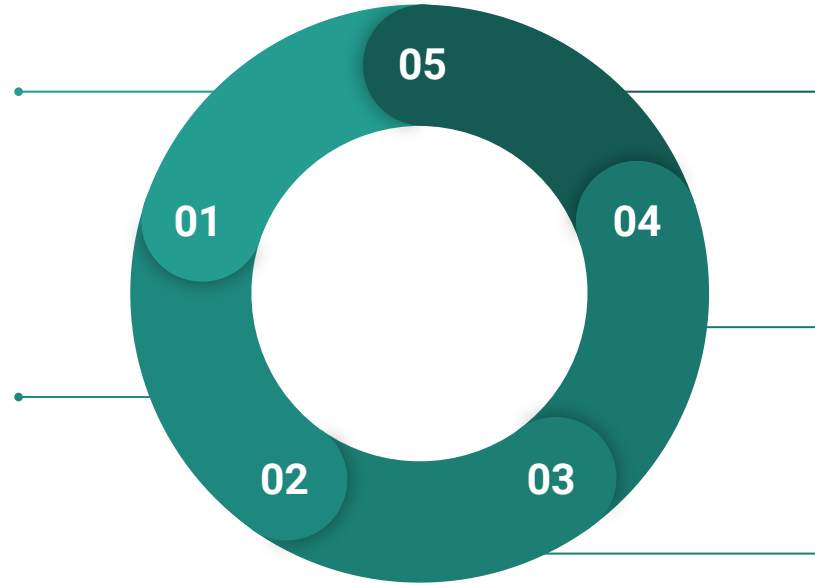


## Refactoring

Making code cleaner and more robust  
Retrain the ML-models

## More features and exercises

Analyze more aspects and add  
individual training exercises



## Virtual Reality

Fully immersive presentation  
simulation  
Complete coaching experience

## Gamification

Make public speaking fun!

## Progress analysis, tracking

Let the user see his progress over  
time

