



## Call for Master, Bachelor Thesis or Student Research Project

# Comparison of algorithms for audio analysis of speech therapy data

### Description:

Voice disorders have a significant impact on quality of life and cause absences from work and financial losses. According to research by Jung and Delb (2018), the probability of developing voice disorders in Germany is 6.6%.

Voice therapy covers various aspects, including improving voice quality, strengthening the diaphragm and voice, and working on chest resonance. Functional voice therapy is a proven effective method for treating voice disorders. This includes specific exercises that are designed as home therapy.

As part of the LAOLA project, an app is being developed with which the speech therapy exercises can be carried out. It represents an interactive training using real-time analysis of the visual and auditory aspects.

The aim of this work is to compare different audio analysis algorithms such as Praat or the online pitch detector. For this purpose, the algorithms are implemented and performed on an existing and annotated data set of auditory data of speech therapy exercises.

In the case of a student research project or similar, a subsequent thesis is possible.

**Keywords:** data processing system, audio analysis, speech therapy

[1] JUNG, Sebastian. Systematisches Review und Metaanalyse zur konservativen Behandlung von funktionellen Stimmstörungen. Jung, 2018.

If you are interested and have any questions on this topic, **please book an appointment** via:  
<https://calendly.com/fudickar/>

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