



UNIVERSITÄT ZU LÜBECK
INSTITUT FÜR MEDIZINISCHE INFORMATIK
NACHWUCHSGRUPPE MOVEGROUP

Announcement Master, Bachelor and Study Thesis

Development of a smartphone app for video-based documentation of therapy processes

Description: Regular documentation of the course of disease/therapy can enable or simplify a personalized form of therapy. However, the collection and evaluation of medical parameters is usually very costly. The MOVE-Group is therefore concerned with both the automated (and thus more cost-efficient) video analysis of patients with motor diseases such as dystonia or Tourette's, as well as the development of a data processing system, starting with a smartphone app for recording videos of the patients to be analyzed. In the long term, the app developed by the thesis student is to be embedded in the data processing system that patients are to use for video documentation of the course of their disease/therapy.

This thesis can be designed with respect to the following topics:

- Design of the app front-end and optimization in terms of intuitiveness of use and the resulting acceptance by patients of different ages.
- Development of a stream processing system to transfer recorded video to a host server for further processing.
- Optimization of the patient's video recording process for disease-specific video documentation.

Keywords: Personalized medicine, smartphone app, data processing system

Start: Immediately or by arrangement.

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

Dr. Sebastian Fudickar

Medical Informatics Initiative Junior Research Group

Integration and Analysis of Multimodal Sensor Signals and Clinical Data for Diagnostics and Investigation of Neurological Movement Disorders (MoveGroup)