

Research Internship/University Internship (1-3 positions available)

Requirements Engineering and Usability Analysis of an eHealth Application for Opioid Management in Palliative Care

In cooperation with Dr. med. Tobias Steigleder, Department of Palliative Medicine, University Hospital Erlangen

Background:

Patients in palliative care are often treated with opioids for pain relief. However, patients react very differently to opioid dosages. Furthermore, opioids can cause serious adverse reactions. As wrong dosages can lead to serious unwanted outcomes, this overall setting may potentially lead to prescribed dosage lower than anticipated, causing unnecessary pain for the patient.

While patients inside the clinic can be monitored closely, a „feedback“ channel is missing in at-home/ambulatory environments.

We developed an initial version of a smartphone application that opens a „feedback channel“ from the patient to the user during one of our Innolab projects. This app offers different features (questionnaires, examinations, biosignal analysis) to provide a closer monitoring in an at-home setting.

We now aim to conduct structured interviews and a usability analysis of this app prototype to identify additional requirements and improvement potentials.

Task(s):

- Refine and finalize existing study protocols
- Conduct interviews, usability studies and/or focus groups with patients and medical professionals
- Summarize the findings
- (If applicable, assist in writing a respective publication)

This internship provides the unique opportunity to closely cooperate with the Department of Palliative Care (including potential „Hospitationen“ in the university hospital). Please note that this thesis requires a certain level of sensitivity with respect to the domain of palliative care.

Must-Haves:

- Native-level German language proficiency (for interviews with patients etc.)

Contact:

Michael Nissen
Machine Learning and Data Analytics Lab
Michael.nissen@fau.de

Please include 2-3 sentences about your motivation, a CV and transcript of records in all applications.