



Bachelor and Master Theses Openings

Speech Recognition for Individualized Applications

e.g. for under-resourced languages or from specific speaker groups like elderly speakers, children or speech-impaired speakers

The Quality and Usability Lab of the Institute of Software Engineering and Theoretical Computer Science, Technische Universität Berlin, assures human-based natural interaction schemes in designing human-centric ICT systems with respect to quality and usability. A specific focus is directed to the discipline of automatic speech recognition (ASR), such as the recognition of spoken words from non-standard speech settings, e.g. for non-English languages or specific speaker groups like people suffering from speech impairment, elderly speakers or children. All these speech-profiles diverting from a “standard” variety of speech and pronunciation leads to inferior ASR performance, which will be addressed in detail the thesis.

Your tasks will be connected to ongoing project work based on individual research projects ongoing in the chair, focusing on available ASR resources and varieties in order to spot, analyze and implement extensions and improvement options. The scope of the work will be determined individually, and may include speech elicitation scenarios, corpus collection or annotation work, neuronal modeling, experimentation, implementation and evaluation tasks.

Requirements

- Knowledge in Audio- and Speech processing, or
- Knowledge in machine learning and neuronal modeling (AI)
- Programming skills in preferred language
- Practical skills in statistics and visualization techniques
- English or German language

Please address your application including CV, transcript of records, grades and short introduction to: tim.polzehl@qu.tu-berlin.de