

The Department Artificial Intelligence in Biomedical Engineering of the Technical Faculty and the Institute of Sinology of the Humanities are looking for a joint candidate:

Project / Master thesis

Deep Learning-powered Optical Character Recognition (OCR) in hand-written and fragmentary woodblock printed late-Qing Chinese texts

Background

Digitized transcripts of hand-written and woodblock printed text are of minor quality and written in non-contemporary Chinese. The identification of the Chinese text and its translation into English is important to allow studies in what today is generically termed Traditional Chinese Medicine (TCM), especially concerning veterinary practice (TCVM). We have access to a large body of scanned literature. The student should develop a pipeline for optical character recognition in combination with modern Deep Learning to allow an easy and straightforward transcription of the manuscripts.

The ideal candidate has/is

- Advanced Python programming skills
- Profound knowledge of contemporary AI and DL tools (PyTorch, TensorFlow)
- Background in Computer Vision, Pattern Analysis, and Pattern Recognition
- Ideally insights into OCR systems
- Fluent in Mandarin/Standard Chinese

Project duration

This project can be done as a 10 ECTS project module (3 months) or as a Master thesis (6 months full time). The starting point would be as soon as possible.

Contact

If you have questions please contact us directly. If you are interested in the project, please send your CV, Transcript of Records, and a short (3-4 sentences) motivation to both of us.

Prof. Dr. Andreas M Kist

Department Artificial Intelligence in Biomedical Engineering
Juniorprofessur Artificial Intelligence in Communication Disorders
Technical Faculty
andreas.kist@fau.de

Dr. Renée Krusche

Institute for Languages and Cultures of the Middle East and East Asia
Chair of Sinology with a focus on the intellectual and cultural history of China
renee.krusche@fau.de