The Universität zu Lübeck stands for exceptional research and teaching. We are a modern foundation university with a focus on several core topics. As a life science university, we offer a range of courses from medicine, health sciences and psychology to mathematics, computer science, natural sciences and technology. Our motto is: “Focus on Life”.

The Institute of Medical Informatics (Director: Prof. Dr. H. Handels, Research group: Prof. Dr. M. Heinrich) has one exciting opening to be filled as soon as possible for

**PhD student (m/w/d)**

in the research field of Medical Deep Learning with a fixed-term full-time employment (38.7 h/week) for 3 years. The position is for the purpose of gaining a further academic qualification. The position is funded by the DFG knowledge transfer project LABEL (project partners: Fraunhofer MEVIS, Philips Research).

The successful candidates will be part of the research group of Prof. Mattias Heinrich, which has pioneered new methodological developments in the field of medical image analysis and machine learning as evident from multiple best paper awards at MICCAI, MIDL and BVM. The group is internationally renowned for its research in medical deep learning, which has been proved by numerous publications at top conferences (MICCAI, MIDL) and in prestigious journals (TMI, MedIA). Moreover, it has co-organized the challenge Learn2Reg motivating the advancement of image registration using both, deep learning-based and traditional methods.

Within the LABEL project researchers will promote novel methods for image registration and segmentation as well as explainable learning and uncertainty estimation. These methods can be trained and evaluated together with the project partners on several thousand medical images of the NAKO health study (https://nako.de). Active support for industrial exploitation by Philips Research is possible and desirable.

Additional ongoing and starting research projects provide an excellent exchange with other researchers, which significantly supports a successful PhD degree.

We offer the opportunity to conduct cutting-edge research and advance the state of the art, thereby contributing to improved medical diagnosis, treatment and healthcare. In addition, successful candidates will assist in the establishment of new research directions and have the opportunity to communicate these at international conferences and in scientific journals. We offer an inspiring working and research environment in a dynamic and growing research group with clinical, industrial and academic cooperation partners in a city with a high quality of life (close to the Baltic Sea).

**Scope of activities:**

- Active participation in the DFG project LABEL including communication with project partners
- Communication and publication of results at international conferences as well as in high-ranking journals in the field of Medical Deep Learning
- Support in the supervision of student theses (BSc, MSc)

**Requirements:**

- An outstanding Master degree in computer science, mathematics, engineering or related
- Prior experience in either medical imaging, computer vision or machine learning
• Proficiency in python programming for deep learning (pytorch) or willingness to learn quickly
• Willingness to perform cutting-edge research and advance state-of-the-art methods in medical diagnosis, treatment and healthcare

What we offer:
• Operational pension scheme
• Flexible working hours
• Mobile working
• Compatibility of family and work
• NAH-SH public transport ticket, access to university sports facilities, discounts at the canteen on campus and many other perks
• Health management programme “Healthy University”
• Training opportunities

Pay in accordance with the current tariff if the tariff requirements are met, up to pay grade 13 TV-L. Subject to a final job evaluation.

The Universität zu Lübeck is a modern and cosmopolitan employer. We welcome your application regardless of your age, gender, cultural and social background, religion, worldview, disability or sexual identity. We promote gender equality. In case of equal suitability, qualifications and professional performance, female applicants will be given preference. If you are an applicant with a severe disability, your application will be given preference in case of equal suitability.

Prof. Mattias Heinrich (heinrich@imi.uni-luebeck.de, +49-451-3101-5602) will be happy to answer any further questions you may have on the post and research subject (see also www.mpheinrich.de and www.imi.uni-luebeck.de/forschung/ag-medical-deep-learning.html).

Applications with all relevant materials (coverletter with research interest, curriculum vitae, certificates, list of publications and the contact details of at least one reference), must be received no later than 15.11.2022 as a singlePDF file to bewerbung@uni-luebeck.de, quoting the reference number 1082/22 by (date of receipt)

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