

WE'RE HIRING!



The Center for Digital Surgery is a research hub on Surgical AI and Robotics, with a strong focus on bridging the gap between methodical research and its clinical application. The research group of Prof. Dr. Hagenah aims at „making surgery intelligent“ by leveraging multimodal data, e.g. intra-operative as well as pre-operative images, biosignals and electronic health records, to build AI-driven and robotic surgical assistance systems. Being part of the Department for General, Visceral and Pediatric Surgery, we are working on closing the loop from clinical data collection over methodological research and proof-of-concept-studies in lab setups to the application of clinical demonstrators in the operating room.

In an industry-funded project, we are currently looking for:

2 Scientific Employees (open rank)

100%, TV-L E13, initially for 1 year

The project is driven and funded by an industry partner and has a clear goal: Pushing your research results to a product. Thus, you will closely collaborate with surgeons and industrial collaborators to make sure that your research has a positive impact on the life of patients and clinicians.

An extension of the project - and, thus, of your contract - relies on a successful project outcome.

Your Responsibilities

- Perform applied research in the field of intra-operative assistance systems utilizing laparoscopic video streams
- Design and realize data pipelines to collect and handle surgical video data within the operating room at scale
- Design, implement and test image analysis pipelines for anatomical landmark recognition, object detection and segmentation, with a focus on efficiency
- Develop and validate concepts for an assistance system with real clinical value in close collaboration with clinical experts
- Collaborate closely with industrial partners to translate your findings towards a product
- Co-supervise student researchers

Your Profile:

- Strong background in biomedical engineering, data science, computer science or similar field of study
- High intrinsic motivation with a passion for research and innovation
- Ability to continuously learn and grow within an interdisciplinary team
- Organizational and team skills, flexibility, open-mindedness and communication skills
- Very good programming skills, preferably experience with machine learning/deep learning using Python
- Experience in one or more of the following fields is a plus:
 - Medical Image Analysis
 - Deep Learning, with special emphasis on video analysis
 - Data Engineering for Machine Learning applications
 - R&D in industry

This job opening is **open rank!** Therefore, the position is suitable for applicants at different career stages. We welcome applications from postdoctoral researchers, experts from industry as well as master graduates that wish to pursue a doctorate as a PhD student.

Our Offer:

- A challenging workplace full of opportunities in a multi-disciplinary, cooperative team
- The unique opportunity to translate your technical research to the clinical application with minimal obstacles
- A lot of room for creative freedom and shaping your optimal work environment together
- State-of-the-art equipment
- Support of personal advancement via intensive mentoring, promotion of networking, and mental as well as practical support in research activities through a team-oriented mindset

Send your CV & Cover Letter to
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