

## Bachelor-/Master Theses on Computer Vision for Medicine

Advisor: Constantin Seibold Institut für Künstliche Intelligenz in der Medizin <u>https://mml.ikim.nrw/</u>

The Institute for Artificial Intelligence in Medicine (IKIM) offers students a captivating opportunity to be at the forefront of innovative developments in healthcare. Bringing together researchers from various disciplines, IKIM conducts groundbreaking research that not only enhances patient care but also revolutionizes the training of future generations of doctors and AI scientists. As part of the University Medicine Essen and the University of Duisburg-Essen, IKIM provides an inspiring environment to delve into the exploration and application of AI technologies. Completing theses in this dynamic field not only fosters personal academic growth but also presents the chance to actively contribute to advancing the healthcare industry. Join a team shaping the interface between medicine and artificial intelligence, and play a role in shaping the future of healthcare with your ideas and innovations.

## **Research Topic Directions**

- Computer Vision
  - Medical image analysis
  - Data simulation
  - Video analysis
  - Vision-Language Integration
- Machine Learning
  - Learning with low supervision
  - Alleviating dataset biases
- Development and Utilization of standard computer vision approaches
- Translation of Machine Learning Methods

## Requirements

- Interest in the topic of computer vision and assistive technology
- Python or C++ programming skills and knowledge of PyTorch are desirable

## Contact

If you are interested in a thesis, please feel free to send us your CV and a Transcript of Records. We welcome any interesting ideas and look forward to publication of your work.

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