



Master Thesis, KfK-Praktika, KfK-Seminar

offered at the

Computational Imaging Research Lab (CIR)

www.cir.meduniwien.ac.at

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CIR is an interdisciplinary research group of computer scientists, mathematicians, biomedical engineers, radiologists, and other medical researchers. We develop new machine learning methods for the analysis of medical imaging data and associated data such as molecular information. The master thesis / practical work projects are embedded in ongoing research activities, and you will be part of a team that will support the work.

CIR is part of the Department of Biomedical Imaging and Image-guided therapy. This gives us the chance to continually interact with the clinicians and thus provides us with the opportunity to develop and evaluate novel approaches that address real world challenges.

We offer:

- Tight integration and supervision within the CIR research group with Master-, PhD- students, PostDocs and medical doctors. Feel free to also join our social events :)
- Close supervision possible.
- Access to a high-performance GPU computing cluster as part of the project work.
- Access to big exclusive medical imaging datasets.
- Contribution to top-notch research and real-world use cases that have impact on state-of-the-art patient treatment.
- Wide range of topics in the field of medical image analysis (CT and MR scans, ultrasound imaging, etc.) in various application scenarios (lung diseases, breast cancer, brain, etc.), including
 - Machine Learning and Deep Learning
 - Image segmentation and classification of diseases
 - Landmark detection and image registration
 - Novelty and anomaly detection

If you are interested in doing a master thesis/KfK-Praktikum/project with us, please send an e-mail to philipp.seeboeck@meduniwien.ac.at.

Current Topic Examples:

- Automatic landmark detection in MR volumes of fetuses
- Detection of novel disease patterns in Lung CT Images ("novelty detection")
- Dealing with Dataset-Bias in Medical Imaging (varying scanner types, changing patient population over time)

Since the topic of the master thesis / practical work projects should closely fit your interests, we always define the final topic in joint meetings and discussions together with the students - you. We are already looking forward to receiving your message!







