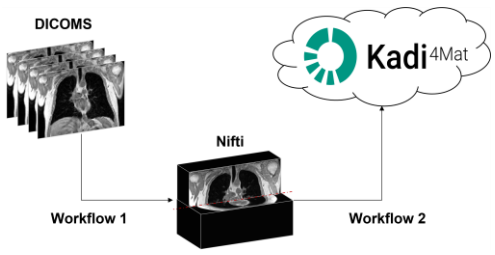
Institut für Angewandte Materialien
(IAM-MMS)
Straße am Forum 7
Geb.30.48
76131 Karlsruhe

Hiwi (m/w/d) wanted

Development of Workflows for Converting and Importing Medical Images in the DICOM-Format

Background



The standard image format for medical images is the DICOM format. This format however is not perfectly suited in the area of medical image analysis since 3D and 4D images are saved slice-by-slice in large separate files. Before analyzing the images, they are therefore usually converted to another image format (e.g. Nifti) and afterwards saved to an external hard drive. Other researchers often don‘t know that these images are converted and repeat the process. This should be circumvented in the future by saving the converted images in the research data infrastructure Kadi4Mat.

Tasks

Within the scope of this work, a workflow should be developed, which standardizes and simplifies reading and converting DICOM images. Additionally, another workflow for saving and organizing the converted images including theirmeta-data in Kadi4Mat should be developed.

Requirements

Knowledge of Linux, Python and possibly C++ is advantageous for the processing of the topic.

We offer

- Intensive support
- Modern workstations and high-performance computers as working environment
- Productive and dynamic atmosphere in a team
- Cooperation with international research groups
- Cooperation with a clinical research institute
- Career perspectives as young scientist

Contact person
Name: Julian Grolig - Email: julian.grolig@kit.edu