



Master's Thesis

Joining Forces Against COVID – Developing AI Algorithms for the Automated Diagnosis of COVID in Computed Tomography Scans of the Chest

Description

The Department of Diagnostic and Interventional Radiology (University Hospital Aachen) is part of a large consortium of 35 German University Hospitals (termed RACOON) which helps collect computed tomography (CT) scans of COVID and non-COVID patients. Building on a database of approximately 100,000 CT scans your task will be to develop AI models to automatically identify signs of COVID in patients and to assess the severity of the disease. Other non-imaging markers of patient status can be included in the models, too.

Your Profile

- Physics or engineering student with good grades;
- Familiarity with programming in Python (ideally PyTorch);
- A strong interest in and excellent general understanding of AI methods.

What we Offer

An interdisciplinary environment with medical doctors, post-docs in physics, and PhD candidates in engineering and physics. The machine learning group is led by PD Dr. med. Dipl.-Phys. Daniel Truhn (Radiologist and Physicist) and PD Dr. med. Sven Nebelung (Radiologist). Our research group is characterized by mutual support, close supervision, and regular scientific meetings.

Whom to Contact

Interested? Please get in touch via e-mail at snebelung@ukaachen.de or dtruhn@ukaachen.de. We are looking forward to hearing from you.



Slice of CT scan of a patient's chest presenting with severe COVID symptoms.

