



The Institute for Robotics and Cognitive Systems, directed by Prof. Dr. A. Schweikard, ([www.rob.uni-luebeck.de](http://www.rob.uni-luebeck.de)) at the University of Lübeck has one open

### PhD position

in the research group led by Prof. Dr. F. Ernst ([ernst@rob.uni-luebeck.de](mailto:ernst@rob.uni-luebeck.de), +49 451 500 5208). The student will participate in a currently active research project, called

### Machine Learning and Data Analysis for High Accuracy Head Tracking in Cranial Radiation Therapy

In the past five years, the Institute for Robotics and Cognitive Systems, in collaboration with Varian Medical Systems (Palo Alto, California and Baden, Switzerland), has developed a novel scanning method for non-invasive and contact-free localization of the human skull using infrared laser radiation. Further development of the device in terms of accuracy and capabilities will be part of the student's responsibilities. For details please see <https://www.rob.uni-luebeck.de/index.php?id=336&L=1>.

There are multiple open research questions in the project, ranging from biomedical optics to systems engineering, clinical data acquisition, artificial intelligence, deep learning and evaluation as well as image and signal processing.

The position is part of the PhD programme at the Graduate School for Computing in Medicine and Life Sciences ([www.gradschool.uni-luebeck.de](http://www.gradschool.uni-luebeck.de)). The PhD position is funded for three years with a scholarship of 1600 EUR per month.

#### Requirements

Applicants are expected to have a first class or distinction master's degree in, e.g., computer science, mathematics, physics or engineering. A strong background in machine learning, software engineering or image processing is desirable. Excellent programming skills, analytical problem solving and organizational abilities are required.

#### How to apply

A full application consists of:

1. a detailed CV
2. a statement of motivation
3. two reference letters
4. degree certificates and grade transcripts (master and bachelor)
5. summary (1-2 pages) of the master's thesis

Please submit your application in ONE PDF file via email to [jobs@rob.uni-luebeck.de](mailto:jobs@rob.uni-luebeck.de).

#### Closing date

The position is open until filled.