

The Leibniz-Institut für Analytische Wissenschaften – ISAS – e. V. is a research institute dedicated to the development and improvement of analytical methods and tools for health research and related fields. The ISAS is a member of the Leibniz Association and is publicly funded by the Federal Republic of Germany and its federal states.

In the group of Analysis of Microscopic BIOMedical Images (AMBIOM) within the department Biospectroscopy in Dortmund we invite applications for

### **Masters Intern (machine learning and bioimage analysis) (m/f/d)**

In this group we have an opportunity for Masters Internship project to conduct machine learning research on bioimage analysis problems. Currently, the AMBIOM group has extensive collaborations with local, national, and international partners on a wide range of bioimage analysis problems, such as cell tracking, high dimensional image segmentation, in-silico labeling, image registration, etc. We are developing machine learning based algorithms and tools to address these bioimage analysis problems, which are all driven by real biomedical research. Depending the background and interest, the student will have the opportunity to join a specific project to develop novel machine learning solutions during the thesis project for six months or more.

#### **Your tasks:**

- Literature study on related bioimage analysis and machine learning publications;
- Implement baseline solutions, conduct systematic comparison, and investigate potential improvements;
- Summarize the project as an open-source package and/or open-access publication.

#### **Your profile:**

- Enrolled in the Masters programs for IT, computer science, applied mathematics, biomedical engineering, or related engineering fields;
- Basic knowledge of machine learning, especially deep learning;
- Hands-on experience with implementing machine learning methods (related to images) using PyTorch;

- Basic knowledge of biomedical image analysis is a plus;
- Ability to work in team, critical thinking and solution-oriented approach;
- Good communication and presentation skills in English.

The Masters Internship is available immediately and initially offered for 6 months. ISAS supports the principle of equal opportunity for all employees and would therefore particularly encourage women to apply. Applications from severely disabled people are welcome.

ISAS collects and processes the personal data of its applicants in accordance with European and German legal regulations. Further information on data protection and the processing of personal data can be found at [www.isas.de/datenschutzhinweise-fuer-bewerberinnen-und-bewerber](http://www.isas.de/datenschutzhinweise-fuer-bewerberinnen-und-bewerber).

Applications should contain: A cover letter with a short presentation of yourself, which ideally underlines your interest in working at ISAS and your particular suitability for the position advertised, your curriculum vitae as well as a copy of your Bachelor diploma. Please send your complete and informative application documents as a pdf document by **February 4, 2024**, quoting the reference number **268/2024**, by e-mail to [bewerbungen@isas.de](mailto:bewerbungen@isas.de). Informal requests are welcome and can be directed to the Human Resources Office ([bewerbungen@isas.de](mailto:bewerbungen@isas.de)). Further information about the institute can be found at: <http://www.isas.de>.