Germany's largest research organization, the Helmholtz Association, has launched Helmholtz AI - an interdisciplinary platform which advances applied artificial intelligence methods nationwide for all Helmholtz centers in collaboration with its external and university partners. The Helmholtz AI research group "AI for decoding human brain organization", headed by Prof. Dickscheid, is part of the Institute of Neuroscience and Medicine - Structural and functional organisation of the brain (INM-1, Prof. Amunts), at Forschungszentrum Jülich, and closely linked to the Institute of Computer Science at Heinrich Heine University Düsseldorf. Working towards a cellular resolution 3D model of the brain, we develop state of the art machine learning methods for microscopic image analysis to extract knowledge about cells, fibers, and microstructurally defined brain regions from fascinating images of the brain. The methods are implemented as distributed workflows on HPC systems in collaboration with the Jülich Supercomputing Center to operate at high throughput. At the intersection of neuroscience and AI, we work with renowned international partners.

Join our team! To strengthen our Helmholtz AI research group and activities at HHU, we are looking for an experienced

**Postdoc in Machine Learning for Microscopic Image Analysis**

**Your Job:**
- Develop novel machine learning models for uncovering the microstructural composition of networks in the human brain from fascinating images
- Address the inherent challenges of analyzing large multimodal image datasets with limited annotations and high variability
- Contribute to our international cooperations at the intersection of AI and neuroscience
- Publish and present your research outcomes in journals and relevant conferences
- Help us to acquire new research projects and third-party funding

We look forward to receiving your application until 15.05.2022 via our [Online-Recruitment-System](https://www.fz-juelich.de).

Questions about the vacancy?
Get in touch with us by using our [contact form](https://www.fz-juelich.de).

Please note that for technical reasons we cannot accept applications via email.

[www.fz-juelich.de](http://www.fz-juelich.de)
Mentor PhD candidates and contribute to our teaching activities at Heinrich-Heine-University Düsseldorf

Your Profile:
- University degree (Master) in computer science, mathematics, medical informatics or related field
- PhD in one of the above fields
- Solid background in machine learning for image analysis
- Strong publication record in relevant fields such as computer vision and AI, preferably with biomedical applications
- Hands-on programming experience with established frameworks for Deep Learning and data analysis, preferably in Python
- True enthusiasm for interdisciplinary research
- Independent and proactive working style
- Excellent team working skills
- Very good oral and written communication skills in English

In addition, you preferably bring:
- Practical expertise in teaching and supervision of students
- First experience in coordinating small teams

Our Offer:
We work on the very latest issues that impact our society and are offering you the chance to actively help in shaping the change! We support you in your work with:
- An attractive research campus with excellent infrastructure and cutting-edge supercomputing systems, located between the cities of Cologne, Düsseldorf, and Aachen
- A highly interdisciplinary working environment in an institute developing the most detailed microstructured atlas of the human brain
- An active involvement in one of the large AI initiatives in Germany
- A strong network of excellent national and international partners in the fields of neuroscience and AI
- Engagement in supervision and teaching activities linked to Heinrich Heine University Düsseldorf
- A highly interdisciplinary working atmosphere fostering the ideas of open science
- Comprehensive training courses and individual opportunities for personal and professional further development
- Extensive company health management
- Ideal conditions for balancing work and private life, as well as a family-friendly corporate policy
- Full-time position with the option of slightly reduced working hours and 30 days of annual leave
- Targeted services for international employees, e.g. through our International Advisory Service

We offer you an exciting and varied role in an international and interdisciplinary working environment. The position is initially for a fixed term of 3 years, with possible long-term prospects. Salary and social benefits in conformity with the provisions of the Collective Agreement for the Civil Service (TVöD). Depending on the applicant’s qualifications and the precise nature of the tasks, salary grade 13 -14 TVöD-Bund.

We welcome applications from people with diverse backgrounds, e.g. in terms of age, gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A
diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.