The Jülich Centre for Neutron Science (JCNS) operates at the Heinz Maier-Leibnitz Zentrum (MLZ) in Garching near Munich a suite of high performance neutron scattering instruments. It provides access to these instruments for scientists from universities and research institutions in Germany and throughout the world. Within the user program more than 1000 scientists visit the MLZ every year to perform experiments in the physical, chemical, biological and materials sciences. In addition, JCNS is actively pursuing a research program in the field of soft matter science and condensed matter physics.

JCNS Neutron SimLab supports facility scientists and users with software solutions and infrastructure for each step of their scientific workflow: from planning the neutron experiment through the data acquisition to the data reduction and analysis.

Data-driven discovery group of JCNS Neutron SimLab is looking for a highly motivated postdoc to join the multidisciplinary team at Garching working on AI-assisted solutions for ill-posed inverse problem in the framework of a BMBF project.

We are looking to recruit a

**Technical / Scientific Project Manager – Machine Learning (ML) and Artificial Intelligence (AI)**

**Your Job:**
The work will be performed in close collaboration with instrument scientists of JCNS (Jülich) and MLZ (Garching), as well as other SimLab groups, Jülich Supercomputing Centre (JSC), as well as other German research institutions. We also closely cooperate with other research centres worldwide. Your tasks in detail:

- Take active part in project management and coordination
- Contribute to the development of new deep/machine learning techniques to address the ill-posed inverse problem in neutron and x-ray scattering
- Contribute to the development of metadata standards for the training data

We look forward to receiving your application until 05.01.2024 via our Online-Recruitment-System!

Questions about the vacancy?
Get in touch with us by using our contact form.
Please note that for technical reasons we cannot accept applications via email.

www.fz-juelich.de
Contribute to the development of open-source software (Python, C++)
Evaluate the performance of deep/machine learning models
Actively collaborate with experimental physicists and instrument scientists
Present research results at scientific meetings, conferences and as scientific papers

Your Profile:
- Masters degree with subsequent PhD in physics, mathematics, computer science or related fields
- Knowledge of project management basics
- Strong mathematical background
- Advanced knowledge of statistics is desired
- Interest to x-ray and neutron scattering
- Comprehensive knowledge and experience in AI and applied machine learning
- Experience with Python (knowledge of pytorch/tensorflow and pandas is a benefit), and numerical mathematics
- Experience with Unix/Linux (experience with HPC is a benefit)
- Very good command of written and spoken English
- Initiative character, self-motivated well organized personality, creativity, good interpersonal, communication and presentation skills, result orientation and analytical skills

Our Offer:
We work on the very latest issues that impact our society and are offering you the opportunity to actively help in shaping change. Here is what Forschungszentrum Jülich can offer you:
- The position represents an excellent opportunity to carry out research in the novel field
- Challenging and varied work in a growing multicultural team of enthusiastic professionals
- Visibility of our products in the web, public git repositories, through scientific publications, and at schools and conferences
- Developing the potential of our employees is important to us, which is why we offer individual professional development opportunities
- Exciting working environment on an attractive research campus, ideally situated close to the city of Munich
- Ideal conditions for balancing work and private life, as well as a flexible work arrangements, e.g. possibility of remote work
- Flexible working hours in a full-time position (39 hours/week) with the option of slightly reduced working hours
- 30 days of annual leave and provision for days off between public holidays and weekends (e.g. between Christmas and New Year)

Place of employment: Garching (Munich)

In addition to exciting tasks and a collaborative working atmosphere at Jülich, we have a lot more to offer: https://go.fzj.de/benefits

You will be employed for a fixed term of 3 years. Salary and social security benefits will conform to the provisions of the Collective Agreement for the Public Service (TVöD-Bund), pay group 13, depending on your current qualifications and the precise nature of the tasks assigned to you.

We particularly welcome applications from people from a diverse range of backgrounds
(e.g. regardless of age, gender, disabilities, sexual orientation/identity, as well as social, ethnic, and religious background). We strive to offer a diverse and inclusive working environment in which people enjoy equal opportunities and are able to fulfill their potential.