The Jülich Supercomputing Centre (JSC) is a research institute that operates one of the most powerful supercomputer infrastructures for scientific and engineering applications in Europe, situated within Research Center Jülich (FZJ), member of Helmholtz Association.

To advance large-scale machine / deep learning (ML/DL) research with High Performance Computing (HPC), JSC sets up a High Level Support Team (HLST). Focused on software development and research support for ML/DL, HLST will become part of the recently launched Helmholtz Artificial Intelligence Cooperation Unit (HAICU). HAICU is a Helmholtz-wide platform consisting of 6 Helmholtz Research Centers across Germany, FZJ being among them. HAICU aims to reach an international leadership position in basic and applied AI research by combining advanced methods from ML/DL with Helmholtz’ unique scientific questions and data sets - bringing together scientists from all Helmholtz centers, scientific partner institutions and industrial partners and fostering open, transdisciplinary research.

At JSC, HLST will work close together on setting up Helmholtz AI locally with the research-oriented Cross-Sectional Team Deep Learning (CST-DL). The research topics will include large-scale, self-organized continual learning for growing multi-task general AI models on modular supercomputers, and methods for establishing physics-aware adaptive simulation - learning loops transferable across various domains. Special focus will be on making use of highly scalable and distributed ML/DL methods on HPC facilities hosted directly at JSC. The activity will be strongly dedicated to principles of open science and open source software, making all the results transparent and all the tools available to scientific communities and public.

We are looking to recruit a member of HLST

2020-049 - Scientific Team Leader, Researcher Large-Scale HPC Machine / Deep Learning

We look forward to receiving your application until 31.03.2020 via our Online-Recruitment-System!
Questions about the vacancy?
Contact us by mentioning the reference number 2020-049:
career@fz-juelich.de
Please note that for technical reasons we cannot accept applications via email.
www.fz-juelich.de
Your Job:
- Lead a cutting edge High Level Support Team (HLST) hosting further 4 Machine Learning / Deep Learning (ML/DL) Researchers and Software Engineers as an integral part of Helmholtz AI
- Define and coordinate research, open source software development and research support activities for ML/DL and related methods with focus on large-scale HPC applications
- Work close together with Cross-Sectional Team Deep Learning based at JSC to define and push forward common long-term research goals and long-term open software libraries, platforms and data services with high usability and impact across domains and ML/DL community
- Establish tight connections with other Helmholtz AI Centers, their HLSTs and local partners to build up open research community
- Provide and coordinate support to Helmholtz AI research community for their scientific projects that involve ML/DL technologies and tools, including symposia, workshop and hackathon organization
- Conduct your own research, acquire new research projects and funding, publish and present findings and research outcomes of your own research and of the projects supported by HLST

Your Profile:
- Excellent Master or Doctorate (preferred) degree in computer science, machine learning, mathematics, physics or a related subject
- Ability and ideally experience to lead a small team of experts with heterogeneous skills, to organize and coordinate group tasks (e.g. support tickets, documentation, quality control, etc.)
- Research experience in ML/DL field, documented in your dissertation, peer-reviewed publications, project experience, participation in top conferences (NeurIPS, ICLR, ICML, etc)
- Practical experience with ML/DL toolchains and Workflows documented in your dissertation, peer-reviewed publications, or project experience
- Advanced experience with high level programming languages (C++, Python) and best software engineering practices
- Experience with High Performance Computing (ideally ML/DL related, CPU and GPU-based)
- Very good knowledge of English in written or spoken form
- Ability to present your work at international conferences

Our Offer:
- Work on frontiers of scientific and technological challenges as team leader with access to cutting-edge and unique supercomputing systems
- Become a foundational and fundamental member of one of the biggest AI initiatives in Germany
- Develop your academic career and engage in the supervision of master and doctoral students in the highly diverse fields.
- If desired, option towards obtaining a PhD degree can be offered in frame of Helmholtz School for Data Science in Life, Earth and Energy (HDS-LEE) that provides an interdisciplinary environment for educating the next generation of data scientists in close contact to domain-specific knowledge and research. Application to HDS-LEE is possible after PhD topic is defined.
- Freedom to work on your own research questions for a substantial fraction of your working time
- Outstanding research and computing infrastructures in one of Europe’s largest
supercomputing facilities

- Limited for 2 years with clear possible longer-term prospects (Long-term HAICU funding already set and confirmed)
- Full-time position with the option of slightly reduced working hours
- Salary and social benefits in conformity with the provisions of the Collective Agreement for the Civil Service (TVöD).

Forschungszentrum Jülich promotes equal opportunities and diversity in its employment relations.

We also welcome applications from disabled persons.