

Looking for new challenges in supercomputing? Join our interdisciplinary team at the ZIB!



February 11, 2021

The Supercomputing Department of the Zuse Institute Berlin (ZIB) is looking for a

High-Performance Computing “Data Scientist”

Reference code: WA 10/21

Pay grade: E13 TV-L Berlin (100%).

With an opportunity to start at the earliest possible date, this vacancy offered is a fixed-term contract until December 31, 2025. Subsequently, there is the possibility of a permanent contract.

The Zuse Institute Berlin (ZIB) is an interdisciplinary research institute for applied mathematics and data-intensive high-performance computing. Its research focuses on modeling, simulation, and optimization with scientific cooperation partners from academia and industry. Since January 2021, the ZIB has been extending its scientific services by offering HPC consulting for scientists in Germany and international projects as part of the nationwide HPC initiative “Nationales Hochleistungsrechnen” (NHR). We operate compute and storage resources at a top level. Currently, our HPC system “Lise”, with its 8 PFLOP/s peak performance, provides a platform to realize demanding computational tasks and data analysis workflows to solve complex scientific questions. The “Lise” system comprises 120,000 compute cores, 500 TB distributed memory, and 8 PB persistent online storage.

The applicant will join the HPC Consultants Group at the ZIB to help users across multiple science domains to implement data-intensive workflows efficiently on NHR HPC systems. The position requires collaborative interaction with users who develop and apply software frameworks for machine learning, AI, and related parts in data-driven science projects as well as focusing on performance aspects on the current and next-generation technology platforms, while pursuing his/her own research plans in a data science related field.

We are looking for a candidate with a strong background in method development and software frameworks for data analytics who is highly motivated to work in the converging area of high-performance computing and data analytics.

Your Responsibilities:

- Guiding the nationwide NHR user community to implement efficiently data-intensive and machine learning, AI, and other data-driven workloads
- Developing best-practice solutions for efficient multi-tiered data management
- Evaluating, adapting and contributing to optimized versions of machine learning/AI software, working jointly with other HPC experts to migrate code to next-generation supercomputer architectures
- Installing machine learning/AI software frameworks and developing best-practice solutions and documentation
- Contributing to nationwide NHR training activities for users of data analytics frameworks
- Conducting your own research in the respective field, including the acquisition of third-party funded projects
- Publishing scientific results at international conferences and in journals (travelling will be supported by the ZIB)

Candidates need to provide:

- University degree with proven expertise in a data-science related field, preferably on the interfaces between machine learning and simulation or optimization, in bioinformatics or similar areas
- Good technical background on state-of-the-art technologies for machine learning / AI (AI-specific hardware and software), and parallel computer architectures (processors, high-performance interconnects, memory hierarchies, and storage systems)
- Experience in using frameworks for data processing / machine learning / AI software frameworks on parallel computer systems
- Background in parallel programming (multi-threading, message passing) using C/C++ and Python; experience with accelerators (GPU, FPGA) would be desired
- Good understanding of data management technologies including parallel file systems, memory and multi-tier storage hierarchies
- Strong focus on self-reliance, pro-activity, creativity and the ability to work in a team

We offer

a dynamic, state-of-the-art working environment and a family-friendly working atmosphere

as well as

- a future-proof workplace with a diverse area of responsibility,
- training and courses to develop and improve personal skills,
- additional pension scheme (VBL),
- 30 days annual leave, flexible working hours (flexi time),
- a salary in accordance with TV-L (Collective Agreement for the Public Service of the Federal States), taking into account the relevant professional experience,
- an end-of-year bonus,
- discounted BVG (public transport) ticket as part of the capital city allowance,
- and the use of canteens and sports programs of the Freie Universität Berlin (FUB) at reduced rates.

Female applicants are highly encouraged to apply. Since women are underrepresented in information technology, the ZIB endeavors to increase the proportion of women in this research area.

Applicants with disabilities will be preferred as long as equally qualified.

Please send your application including CV and the usual documents by email in pdf-format only to jobs@zib.de, quoting the reference code **WA 10/21** by **March 12, 2021** (date of receipt).

You can find our data protection information on the application process at www.zib.de/impressum.

For further information on the area of responsibility, please contact Dr. Thomas Steinke (steinke@zib.de)

