

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



06.02.2020

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

**HPC Consultant/Computational Fluid Dynamics and Structural
Mechanics (f/m/d)
reference WA 05/20
100% - TV-L, E14.**

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. As part of its scientific service, ZIB operates supercomputers at the top performance level. The HLRN-IV system of the North German Supercomputing Alliance (www.hlrn.de) is a distributed supercomputer system operated at ZIB/Berlin and University of Göttingen. It enables scientists in Germany nationwide to perform complex computational and data-intensive tasks. With more than 200.000 compute cores, 800 TB distributed memory and 16 PB online persistent storage the HLRN-IV will be among the top supercomputers in Germany. The Berliner HLRN-IV complex named "Lise" at ZIB provides today a peak performance of 8 PFLOP/s and is ranked at position 40 in the worldwide TOP500 list of supercomputers.

The applicant will join our HPC Consultants group, working with HLRN code developers and users to support the efficient implementation of their computational and data analytics projects nationwide, thereby further strengthening the expertise of our group.

We are seeking for a candidate who is highly motivated in working with innovative technologies and their efficient use on current and next-generation HPC architectures and consulting the HPC user community.

Your Responsibilities:

- supporting HPC users in all phases of their scientific projects in the domain of CFD and structural mechanics including preparation, implementation and production,
- cooperating with HPC consultants and code developers on the code re-design to enable the efficient use of next-generation architectures,
- installing and maintaining community and commercial engineering codes (e.g. OpenFOAM, STAR-CD, Abaqus/Fluent),
- providing an interface between user community and system administrators regarding technical and administrative aspects,
- helping users to identify performance bottlenecks and working jointly with users to modernize their codes,
- contributing to training activities and workshops.

Candidates need to provide:

- a university degree and PhD in engineering, preferably related to CFD or structural mechanics,
- a self-standing research profile, including scientific publications and list of conducted research projects,
- experiences in using HPC platforms for engineering applications,
- a basic technical understanding of modern parallel computer architectures (many-core and vector processors, high-performance interconnects, memory hierarchies),
- good programming skills in C/C++ or Fortran, and Python as well as parallel programming models (OpenMP, MPI),
- experiences in the use of modern software engineering practices and performance analysis tools,
- a strong focus on self-responsibility, pro-activity, the ability to work in a team, and creativity.

We offer

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

plus

- 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),
- payment in accordance with TV-L (Collective Agreement for the Public Service of the federal states), taking into account the relevant professional experience and annual special payment,
- discounted use of the cafeterias and the sports activities offered by the Freie Universität Berlin (FUB).

The candidature of women is encouraged. Since women are underrepresented in information technology, ZIB is trying to increase the proportion of women in this research area.

Persons with disabilities will be given preference when equally qualified.

Please send your complete application with a tabular CV and the usual documents electronically by **09.03.2020** (date of receipt), quoting reference **WA 05/20** to: jobs@zib.de. Please send your documents as PDF only.

Our private policy statement regarding application data is available at www.zib.de/impressum.

For more information about the area of responsibility, please consult the HLRN webpage www.hlrn.de or contact Dr. Thomas Steinke (steinke@zib.de).

For further job offers please visit our website at www.zib.de.