TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world’s most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

As a competence centre for High Performance Computing (HPC), the Centre for Information Services and High Performance Computing (ZIH) has been providing researchers from a wide range of disciplines with access to extensive HPC resources and support for their efficient and highly scalable use for scientific computing since 2005. In addition, the ZIH is active in computer science research cooperation with national and international partners in different projects. Since 2021, it is one of nine German NHR Centers (Centers for National High Performance Computing) – NHR@TUD – and offers HPC services and support on a national level.

The Center for Information Services and High Performance Computing (ZIH) offers a position within the NHR center NHR@TUD as a

**Research Associate from the life sciences to support data-intensive HPC applications (m/f/x)**

(subject to personal qualification employees are remunerated according to salary group E13 TV-L)

starting at the earliest possible date. The position is initially limited until June 30, 2027 with an option for extension. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). Balancing family and career is an important issue. The offered position is generally suitable for candidates seeking for part-time employment. Please indicate your request in your application.

The focus of this position is the tailored support of research projects in the life sciences in connection with computing issues and the efficient use of high-performance computers and data storage as well as the adaptation, optimisation and parallelisation/scaling of domain-specific software packages and data workflows to HPC environments. The position aims at a particularly close cooperation with the Center for Molecular and Cellular Bioengineering (CMCB) including its three institutes B-CUBE, BIOTEC, und CRTD and the German Human Genome-Phenome Archive (GHGA) as substantial HPC user groups. This includes joint research activities in the methodological (computer science, HPC) and application (biology, medicine) fields.

**Tasks:**

- scientific advice for researchers in the field of life sciences (biology, medicine, etc.) in the implementation of their individual research projects on high-performance computers
- the focus is on data-driven and data-intensive research projects as well as storage and data management
- support in the design and implementation of these HPC projects
- analysis and adaptation of existing software in close cooperation with the responsible research groups
- scientific advice on promising technologies, algorithms, applications, software frameworks or libraries and Open Source or community codes
- documentation, publication and presentation of scientific results.

**Requirements:**
- university degree in a life science (biology, bioinformatics, medicine, etc.) or in computer science/mathematics with additional experience or a high willingness to learn in the field of life sciences
- experience with computational science research projects from relevant disciplines using extensive data processing, data collection, simulations, data analysis, High Performance Computing or similar
- programming skills in C, C++, Python or similar languages
- very good command of written and spoken German or English
- high degree of independence, commitment, flexibility and communication skills.
- Knowledge of relevant application programs, software frameworks and libraries as well as community codes from the application areas mentioned is desirable.
- Knowledge and experience of working under Linux, knowledge of the use of HPC systems and knowledge of parallel programming are desirable.

**We offer:** highly interesting and creative work topics in current research areas, state-of-the-art IT infrastructure, agreements on flexible working and a family-friendly working environment in a city of science and culture surrounded by a unique landscape.

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university and offers a Dual Career Service. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

Please submit your detailed application with the usual documents mentioning the **Job-ID “NHR 12”** until **February 2, 2024** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal [https://securemail.tu-dresden.de](https://securemail.tu-dresden.de) by sending it as a single PDF file to zih@tu-dresden.de or to: TU Dresden, ZIH, Herrn Prof. Dr. Wolfgang E. Nagel, Helmholtzstr. 10, 01069 Dresden, Germany. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

**Reference to data protection:** Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: [https://tu-dresden.de/karriere/datenschutzhinweis](https://tu-dresden.de/karriere/datenschutzhinweis).