

Helmholtz-Zentrum Dresden-Rossendorf e.V.



With cutting-edge research in the fields of ENERGY, HEALTH and MATTER, around 1,500 employees from more than 70 nations at Helmholtz-Zentrum Dresden-Rossendorf (HZDR) are committed to mastering the great challenges facing society today. The Center for Advanced Systems Understanding (CASUS) is a German-Polish research center for data-intensive digital systems research. The Department of Scientific Computing Core is looking for a

Postdoc (f/m/d) GPGPU Computing

City: Görlitz; Starting date (earliest): 01/09/26; Duration: 3 years; Remuneration: TVöD Bund; Reference number: 2026/51; Closing date: 30/06/26

Tasks

- Research in GPU programming and (highly) parallel programming for HPC and Scientific Computing
- Active contribution to Open Source Scientific Community codes
- Working with application field scientists from various fields and different levels of IT background and their ambitious HPC codes
- Own research focus on one of the areas of
 - Parallel programming models or programming abstraction
 - parallel algorithms
 - performance/scalability analysis and optimization or
 - exploration of AI assisted programming for parallel processing
- Publishing results in academic and peer-reviewed journals with own research focus topics and in collaboration with application field scientists, presenting results at scientific meetings

Requirements

- Completed university studies (PhD) in one of the fields of Computer Science, Physics, Chemistry, Mathematics, or a related field with a strong computational science focus
- Experience in numerical algorithms is a plus
- Practical experience and proven contributions (scientific publications or software development) are a plus
- Experience with libraries for scientific computing, parallel computing and GPU computing are a plus
- Strong motivation to work in a collaborative and international environment
- Excellent programming skills in at least one of C/C++, Fortran, or Julia; more are a plus
- Experience in parallel programming with at least one of CUDA/HIP, Alpaka or Kokkos, MPI, OpenMP, HPX, or similar

- Experience with development tools and build systems, git and collaborative development, debugging and profiling tools
- Experience with Linux and on the command line, working in HPC environments
- Excellent communication skills in English and in a professional context, German language skills are a plus

What we offer

- A vibrant research community in an open, diverse and international work environment
- Scientific excellence and extensive professional networking opportunities
- Salary and social benefits in accordance with the collective agreement for the public sector (TVöD-Bund) including 30 days of paid holiday leave, company pension scheme (VBL)
- We support a good work-life balance with the possibility of part-time employment, mobile working and flexible working hours
- Numerous company health management offerings
- Employee discounts with well-known providers via the platform Corporate Benefits
- An employer subsidy for the "Deutschland-Ticket Jobticket"

Application

We look forward to receiving your application documents (including cover letter, CV, diplomas/transcripts, etc.), which you can submit via our online-application-system: <https://www.hzdr.de/db/Cms?pNid=490&pLang=en&pOid=77514>

More information at <https://stellenticket.de/203998/TUB/>
Offer visible until 07/06/26

