You are looking for an employer you can count on? Join us!

The newly formed Quantum Computing and Technologies Department (QCT) at LRZ is a group of computer science and quantum physics specialists dedicated to providing, researching, and advancing quantum computing technologies for the Bavarian and international quantum communities. The QCT team provides scientific users with a broad portfolio of quantum resources and services, including quantum simulators, remote access to quantum hardware, on-premise quantum systems, development environment tools, scientific consultancy, and education/training. This team also researches and develops integration pathways for quantum acceleration capabilities in next-generation high-performance computing (HPC) systems.

As a member of the LRZ Q-Crew, you will be in the driver's seat developing and providing new tools and methods, working with cutting-edge innovative hardware technologies; developing the Munich Quantum Software Stack including programming models, OS, compilers and abstraction layers for multiple quantum technologies based (superconducting, neutral and ion qubits). You are pivotal for building unique solutions to aid quantum and HPC end-users in the advancement of their research and your work will be instrumental in propelling Bavaria as a global quantum hotspot pushing the boundaries of innovative scientific discoveries achievable with quantum accelerated computing.

We are looking to fill multiple positions for:

High-Performance Computing (HPC) Software Engineer
(f/m/d) for Quantum Software Stack

We'll figure out your specific responsibilities on the team based on your skill set and interests. In general, we ask that you:

- Write code, review code, test code and write documention as an active member of the Munich Quantum Software Stack team
- Develop software tools to allow seamless integration of quantum accelerators into current and next-generation (Exascale-class) systems
- Develop technologies for making quantum computing practical and accessible, including programming environments, tools, scheduling and virtualization/multi-user tenancy
- Engage the quantum computing community in the Munich Quantum Valley (MQV) to understand requirements and translate those to the software development requirements
- Follow software development best practices, including continuous integration
- Be a great team member, able to work well with others and across institutional boundaries
- Actively publish on new developments and technical achievements

Skills you need

- At least an MS in Computer Science, or proven experience as a software developer
- Experience with HPC environments and developing system software (OS, compilers, runtimes, programming models, etc)
- Advanced knowledge of HPC networking and programming models including OpenMP and MPI as well as low-level architectures

- Proficient oral presentation and writing skills in English
- Strong desire to contribute your education, experience, energy and enthusiasm on a dynamic team and to share in its success
- Quantum computing knowledge is not required, but valuable

What you get with us

- Ample room to contribute and implement your own ideas on an exciting and important mission. Here, your work makes a real impact to the future of quantum and supercomputing
- On-premise access to multiple, cutting-edge quantum computers, HPC testbeds and large-scale supercomputers. We work with multiple vendors, giving you a rare, broad view of the field
- Substantial, stable financial backing for large-scale R&D projects
- Smart, highly educated, motivated and fun teammates
- Direct leadership that commits to your growth and advancement and an organization that greatly values your contribution to our common success
- Easy pathway, and time, to pursue a PhD aligned with your work, if not already acquired
- Strong connection with academia and opportunities to mentor/teach if interested

Are you looking for a varied and challenging job in a dynamic, cooperative and innovative working environment? Then the LRZ is the right place for you!

An exciting mission in the service of research. A collegial, appreciative working environment. An international, stimulating, diverse corporate climate. Flexible working for an optimal work-life balance and a lot of creative freedom These are the standard at our company. We represent a new age of the public sector employment: all the benefits of public service in one of Europe's most technologically advanced computing centers stocked with leadership-class resources. We actively promote diversity and welcome applications from talented individuals, regardless of cultural background, nationality, ethnicity, gender and sexual identity, physical abilities, religion and age. We give priority to applications from people with disabilities who are equally qualified (SGB IX).

Area	Quantum Computing
Working time	Fulltime (40,1 hrs) flexible working model with electronic time recording
Term of the contract	Initially limited until 31.12.2024 with extension already pending
Remuneration	E13, see Entgelttabelle TV-L
Annual leave / compensatory time off	30 days (24.12. + 31.12. additionally day off) Overtime is compensated by additional time off
Further trainings	Individual support for in-service training and further education
Benefits	e.g. home office option, public transport discount (job ticket), bus and subway (U6) on the doorstep, free parking, pension plan of the Versorgungsanstalt des Bundes und der Länder (VBL), state-of-the-art work equipment

The LRZ in a nutshell:

Since 1962, Bavarian universities and research institutions have relied on the IT expertise of the Leibniz Supercomputing Centre of the Bavarian Academy of Sciences and Humanities. When it comes to the digitisation of science, we are traditionally ahead of the game.

We are looking forward to receiving your complete application documents (including cover letter, CV and certificates) in a single PDF file via e-mail (other file types are not accepted) by latest **31.12.2022**:

>   E-Mail: jobs@lrz.de
>   Subject: **QC-SE (2022/50)**

Are you unsure whether the job suits you or you suit us? Or do you still have questions about this position? Our colleagues will be happy to answer all your questions at the above e-mail address.

This job does not fit? Then take a look at https://www.lrz.de/wir/stellen/ or send us an unsolicited application!

Here you will find information about the collection of personal data during the application process.