Would you like to be involved in the development of future technologies at first hand? Then the Jülich Supercomputing Centre (JSC) is the right place for you!

The JSC operates JUWELS, one of the most powerful supercomputers in Europe, pioneers in providing the first European infrastructure for quantum computing JUNIQ, and will be home to Europe’s first exascale computer JUPITER. JUNIQ - the Jülich UNified Infrastructure for Quantum computing - integrates quantum computers (QC) and quantum annealers in the form of quantum-classical hybrid computing systems into the modular high performance computing environment of the JSC. In co-operation with the research group for Quantum Information Processing of the JSC, JUNIQ is involved in several cutting-edge research activities developing QCs and quantum algorithms as well as provides access to latest QC technology for researchers and industrial partners, enabling them to contribute to one of the most exciting and currently fastest developing technological areas. More about JUNIQ: https://www.fz-juelich.de/en/ias/jsc/systems/quantum-computing/juniq-facility

We are looking to recruit a

**Research Software Engineer / Quantum Software Engineer for the JUNIQ cloud platform**

**Your Job:**
Within the research group Quantum Information Processing we are looking for a Research Software Engineer / Quantum Software Engineer willing to help extend the JUNIQ cloud platform required to provide researchers access to QCs developed and/or acquired in national or European research projects. As a member of the research group Quantum Information Processing you will closely interact with computational physicists modeling and emulating QCs on HPC systems, developing quantum algorithms and use cases, benchmarking QCs and help to address the technical challenges in hybrid quantum classical computing.
Your tasks in detail:

- Advancing JUNIQ’s user platform by integrating QCIs into the Modular Supercomputer of JSC, with a focus on the automated management and authentication of users for the cloud access to new quantum computing devices which are being added to the JUNIQ platform
- Collaborating with project partners from academia and industry
- Presenting outcomes to project stakeholders and the research community at meetings and conferences
- Contributing to the preparation of project report

Your Profile:

- A university degree (PhD or Master) in Computer Science, Research Software Engineering, (Quantum) Cloud Engineering or related fields
- Strong programming and modern software engineering skills in Python. Knowledge of C/C++ and/or Fortran is an advantage
- Fluent handling of UNIX/LINUX and scripting languages (Bash)
- Experience with standards and tools typically used for user management and authentication, such as LDAP, REST, OAuth, Django or Openstack is highly desirable
- Experience and interest in HPC and quantum computing is an advantage
- Self-motivated personality, with the ability to work within a multidisciplinary team and environment on challenging problems
- Excellent command of written and spoken English, command of German is helpful

Our Offer:

We work on the very latest issues that impact our society and are offering you the opportunity to actively help in shaping change. Here is what Forschungszentrum Jülich can offer you:

- A highly motivated team as well as an international and interdisciplinary working environment at one of Europe’s largest research centres
- A world-leading HPC and QC infrastructure
- Opportunity to take part in enabling practical quantum computing
- Extensive occupational health management and a variety of sports activities (e.g. beach volleyball court, running groups, yoga classes, and much more)
- Ideal conditions for balancing work and private life, as well as a family-friendly corporate policy supported by our Equal Opportunities Bureau https://go.fzj.de/ReconcilingWorkandFamilyLife
- Flexible working hours in a full-time position (39 hours/week) with the option of slightly reduced working hours
- Flexible work arrangements, e.g. working from home
- 30 days of annual leave and provision for days off between public holidays and weekends (e.g. between Christmas and New Year)

In addition to exciting tasks and a collaborative working atmosphere at Jülich, we have a lot more to offer: https://go.fzj.de/benefits

You will be initially employed for a fixed term of 2 years but with the prospect of longer-term employment. Salary and social security benefits will conform to the provisions of the Collective Agreement for the Public Service (TVöD-Bund), pay group 13 -14, depending on your current qualifications and the precise nature of the tasks assigned to you.

We welcome applications from people with diverse backgrounds, e.g. in terms of age,
gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.