The Jülich Supercomputing Centre (JSC) operates one of the most powerful supercomputing and data infrastructures in Europe and makes it available to researchers at Forschungszentrum Jülich, in Germany and throughout Europe. The SimLab Neuroscience in the High Performance Computing in Neuroscience department of the JSC provides community-specific support for neuroscientists with respect to complex simulations and data analyses on supercomputers, as well as their methods. As part of its in-house research and development activities, the SimLab Neuroscience develops software for brain-scale simulations of neuronal networks at scales ranging from morphologically-detailed spiking neurons to population dynamics.

Started as a collaboration between the JSC and CSCS, the Swiss National Supercomputing Centre, and continued with funding from the Human Brain Project, the SimLab Neuroscience is developing a new high-resolution, high-performance neuronal network simulator and library (Arbor, https://github.com/arbor-sim/arbor) for the next generation of supercomputing systems. Arbor targets morphologically detailed neuronal network simulations on a variety of HPC resources. It is developed from scratch as an open-source code under a fully open development model.

Join us to support this development as a

2020-061 - Scientific Software Developer with a focus on neuroscience community engagement

Your Job:
- In your role as Product owner for Arbor, you will serve as a bridge to the neuroscientific user community, driving methodological development, neuroscientific application and community support.
- Community engagement, establishing long-term relationships and building research collaborations from the bottom up are key responsibilities.
- You will also be part of the distributed Arbor development team that is responsible for technical development, testing, and user support.

We look forward to receiving your application until 15.03.2020 via our Online-Recruitment-System!

Questions about the vacancy?
Contact us by mentioning the reference number 2020-061:
career@fz-juelich.de
Please note that for technical reasons we cannot accept applications via email.
www.fz-juelich.de
for front-end development, back-end development for HPC accelerators, and DevOps.

- Your results will include the implementation of suitable neuroscience models, optimized for HPC, within collaborative science projects.
- You will present at scientific conferences and publish the results as open-source software.

**Your Profile:**
- Excellent communication skills to enable close collaboration with developers and users from academia at the interface between neuroscience and HPC
- Proactivity and curiosity
- Good command of spoken and written English
- PhD in computer science, computational neuroscience, mathematics, physics or a related subject
- Interest in dynamic neuroscientific problems at system, network or neuronal morphology scales
- Relevant experience in neuroscientific modelling and simulation
- Profound knowledge of software development processes and programming in C++ and Python
- Experience with HPC accelerator backends and in large-scale parallelization, ideally at supercomputing scales, is advantageous

Please note that it is not necessary to fulfil all of these requirements in order to be considered for the position.

**Our Offer:**
- A diverse range of activities in an engaged and experienced team, as well as an interdisciplinary and international work environment
- The opportunity to become part of the Human Brain Project, a challenging large-scale, multidisciplinary European Research Infrastructure project with more than 100 partners in over 20 countries
- Excellent research and computing infrastructure of one of the largest research centres in Europe, located between the cities of Cologne, Düsseldorf, and Aachen
- Development of your personal strengths through a wide spectrum of advanced training and professional development programs, including English and German language courses and a range of HPC courses from introductory to advanced levels
- Flexible working hours and various opportunities to reconcile work, private and family life
- Limited for 2 years with possible longer-term prospects
- Full-time position with the option of slightly reduced working hours
- Salary and social benefits in conformity with the provisions of the Collective Agreement for the Civil Service (TVöD)

Forschungszentrum Jülich promotes equal opportunities and diversity in its employment relations.

We also welcome applications from disabled persons.