Research Software Engineer (f/m/d)

Job description: We seek a research software engineer within the European High Performance Computing project MICROCARD (www.microcard.eu). MICROCARD develops an exascale application platform for cardiac electrophysiology simulations that is usable for cell-by-cell simulations. The platform will be co-designed by HPC experts, numerical scientists, biomedical engineers, and biomedical scientists. In collaboration with the partners in the consortium, you will advance and deploy a DevOps toolchain for a production-ready simulation platform for cardiac electrophysiology. In particular, integrating cutting-edge linear preconditioner and solver technology delivered by the numerics experts into the openCARP simulator will be a key task. Moreover, you will advance a web-based system providing simple and secure access to the simulator.

The KIT mission combines the three strategic lines of activity of research, higher education, and innovation. With about 9,300 employees and 26,000 students, KIT is one of the big institutions of research and higher education in the natural sciences and engineering in Europe.

Qualification: You are an open and ambitious team player motivated to strive for creative and sustainable solutions? We provide a cooperative and communication-oriented environment in the Computational Cardiac Modeling Group at the Institute of Biomedical Engineering. You completed a PhD or Master’s degree in a relevant field? You have experience in software engineering (C++ and web technologies), care about your work and are motivated to work in a multidisciplinary team, have good communication skills as well as a good command of English? In the best case, you have experience in some of the following areas: modeling & simulation of cardiac electrophysiology, numerical linear algebra, PETSc, high performance computing, Spack, software design, DevOps, Continuous Integration, software deployment, angular, Flask, ZeroMQ, software containers, research data management, open science.

Salary: The remuneration occurs on the basis of the wage agreement of the civil service in TV-L E13.

Institute: Institute of Biomedical Engineering (IBT)

Contract duration: Limited to three years (might be extended)

Starting date: March 2021
Application up to: November 30th, 2020

Contact person in line-management: Dr. Axel Loewe, axel.loewe@kit.edu, +49721/608-42790

Application: Application can be submitted at Karlsruhe Institute of Technology (KIT) preferably via email until November 30th, 2020 to axel.loewe@kit.edu with the following documents:

- Cover letter (What’s your motivation for working as a research software engineer and for this position? Maximum 2 pages)
- CV
- Certificates
- Thesis/Theses

We prefer to balance the number of female and male employees. Therefore, we kindly encourage female applicants to apply for this job.

If qualified, handicapped applicants will be preferred.

KIT is certified as a family-friendly university (familienfreundliche Hochschule) and offers part-time employment, leaves for family-related reasons, dual career options, and individual coaching for family-work balance.