At the Institute of Climate and Energy Systems - Energy Systems Engineering (ICE-1) we focus on the development of models and algorithms for simulation and optimization of decentralized, integrated energy systems. Such systems are characterized by high shares of renewable energies and increasing sector coupling, which leads to high spatial and temporal variability of energy supply and demand as well as a high degree of interdependence of material and energy flows. Our research at the ICE-1 aims to provide scalable and faster-than-real-time capable methods and tools that enable the energy-optimal, cost-efficient and safe design and operation of future energy systems.

We are looking to recruit a

Software Developer - Cloud Platform Developer

Your Job:
In the last few years, the role of software platforms in the analysis, monitoring and management of energy systems increased a lot. On our campus, the coordination between buildings and various energy system components is conducted by FIWARE, an open-source IoT cloud platform. FIWARE consists of different modules, e.g. context and time-series databases and proprietary REST APIs for data exchange. To achieve our project goals, different algorithms need to be integrated into FIWARE.

Your job will consist of:
- Development of visualization tools (frontend and backend) to be integrated into the FIWARE platform
- Development of software tools for the integration of third-party components with the FIWARE platform
- Implementation, and maintenance of new modules for integration into the FIWARE platform
- Definition of suitable data and metadata models
- Coordination of the work with the team partners within the project and more
Your Profile:
- Very well completed Master studies in informatics, computer science or related fields
- Strong programming background (e.g. Python, Java, C, C++)
- Knowledge of container technologies (e.g. Docker and Kubernetes)
- Knowledge of visualization tools (frontend and backend) and associated programming skills
- Good knowledge of RESTful API and HTTPS
- Good knowledge of version control with GIT and associated automated workflows
- Excellent ability for cooperative collaboration
- Self-motivated personality, with the ability to work within a multi-disciplinary team environment on scientifically challenging problems
- Very good communication skills in English
- Prior German knowledge is not strictly required, and it is possible to enroll in language courses organized by the research center

Our Offer:
We work on the very latest issues that impact our society and are offering you the chance to actively help in shaping the change! We support you in your work with:
- A large research campus with green spaces, offering the best possible means for networking with colleagues and pursuing sports alongside work
- A diverse and highly motivated working group of international character within one of the largest research institutions in Europe
- Interdisciplinary work combining physics, mathematics, computer science, and engineering
- An excellent scientific and technical infrastructure
- Participation in project meetings, workshops, and conferences
- Strong support and mentoring for setting up a future career in science and/or the industry
- Flexible working hours in a full-time position with the option of slightly reduced working hours
- 30 days of annual leave and an attractive regulation for bridging days
- Possibility of flexible working with a mix between home office and work in presence
- Targeted services for international employees, e.g. through our International Advisory Service

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

We offer you an exciting and varied role in an international and interdisciplinary working environment. The position is for a fixed term of 2 years, with the possibility of an extension. Salary and social benefits will conform to the provisions of the Collective Agreement for the Public Service (TVöD-Bund), pay group 13, depending on the applicant’s qualifications and the precise nature of the tasks assigned to them.

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.