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The UFZ has a strong commitment to **diversity** and actively supports **equal opportunities** for all employees regardless of their origin, religion, ideology, disability, age or sexual identity.
We look forward to applications from people who are open-minded and enjoy working in diverse teams.

Place of work:
Leipzig, mobile working partially possible

Working time:
100% (39h/week)

Contract limitations:
limited contract / 12 months

Salary:
Remuneration according to the TVöD public-sector up to pay grade 13 including

The Helmholtz Centre for Environmental Research (UFZ) with its 1,100 employees has gained an excellent reputation as an international competence centre for environmental sciences. We are part of the largest scientific organisation in Germany, the Helmholtz Association. Our mission: Our research seeks to find a balance between social development and the long-term protection of our natural resources.

Software Engineer for open-source data analysis of cosmic-ray neutron data (f/m/x)

The job

The Helmholtz Centre for Environmental Research (UFZ) has secured 12 months funding through the Helmholtz ScienceServe call to transform the research software "Neptoon" into a multi-purpose, open-source, community-driven toolbox that enables state-of-the-art data analysis, server-based automatic data processing, and science education using cosmic-ray neutron sensing for soil moisture estimation. Join us in building sustainable research software that supports hundreds of scientists, institutional users, and students worldwide in the context of climate change, hydrology, agriculture, and space weather.

attractive public-sector social security benefits.

Application deadline:
19.12.2025

Your contact for any questions you may have about the job:

Dr. Martin Schrön
✉ martin.schroen@ufz.de

Please submit your application via our online portal with your cover letter, CV (please omit your **photo**, age, or marital status) and relevant attachments.

[**Apply now**]

More information about jobs at the UFZ:

www.ufz.de/career

Your tasks

- **Software Engineering Excellence:** Lead the implementation of new scientific features, comprehensive automated testing frameworks and modern CI/CD pipelines, including containerization (Docker, Apache Airflow) that scale from individual researchers to major research infrastructures.
- **FAIR4RS Implementation:** Champion open science by implementing FAIR4RS principles including enhanced metadata management, persistent identifiers (DOIs), and standardized APIs that ensure transparent and reproducible processing.
- **Community Building:** Travel across Helmholtz centers and to the University of Bristol to engage with the international CRNS community, and design and deliver engaging training workshops through the HIDA catalogue.
- **Transfer & Impact:** Design intuitive interfaces (web-based GUIs, command-line tools, Docker images) and prepare the groundwork for operational deployment in monitoring networks like TERENO and eLTER.

We offer

- The freedom to master even the most demanding challenges between basic research and practical application
- The chance to work in interdisciplinary, international teams and benefit from a variety of perspectives
- Firstclass integration into national and international research networks to work together on global challenges
- Excellent research infrastructure and research data management to optimally support your work
- Flexible working hours and a wide range of options for balancing work and care responsibilities through our family office
- Competent support and advice for international colleagues arriving at the UFZ from the 'International Office'
- Special annual payment, capital-forming benefits and subsidised Germany Job Ticket
- A workplace in a vibrant region with a high life quality and social and cultural diversity

Your profile

- PhD in Computer Science, Environmental Sciences, Physics, Geosciences, or related field with demonstrated expertise in research software development
- Strong Python programming skills including experience with modern software development practices (version control, testing frameworks, CI/CD) and interface design (CLI, GUI)
- Experience with software engineering best practices such as containerization (Docker), workflow automation, and API design

- Knowledge or interest in environmental monitoring, hydrology, or Earth system sciences (experience with CRNS data is a plus but not required)
- Commitment to open science principles and FAIR data/software practices
- Excellent communication skills in English (written and spoken); German skills are beneficial but not mandatory
- Collaborative mindset with enthusiasm for community engagement, training, and knowledge transfer
- Willingness to travel within Germany and internationally for collaboration and training purposes
- Experience with scientific computing infrastructure and database systems is advantageous
- Track record of contributions to open-source projects or scientific software packages is highly valued

Helmholtz-Zentrum für
Umweltforschung GmbH –
UFZ
Permoserstraße 15
04318 Leipzig, Germany

charta der **vielfalt**
For diversity in the world of work

SIGNED

TOTAL E-QUALITY

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