Technische Universität Dresden - Center for Information Services and High-Performance Computing (ZIH)

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

Research Associate (m/f/x)
for server-side development at the Virtual Observatory

(subject to personal qualification, employees are remunerated according to salary group E 13 TV-L) A new major research center is currently being established in Lusatia: the German Centre for Astrophysics (DZA). As a globally recognized symbol of innovation, the DZA is creating new opportunities for German astrophysics to take on strategic leadership roles and is having a lasting impact on structural change in Lusatia. To establish and expand the DZA, the Center for Information Services and High-Performance Computing (ZIH) at TUD is seeking to fill a project position as Research Associate (m/f/x) for server-side development at the Virtual Observatory starting as soon as possible. The position is limited until October 31, 2028. The period of employment is governed by § 2 (2) Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). The position is based in Görlitz. Balancing family and career is an important issue. The position is generally suitable for candidates seeking part-time employment. Please indicate your request in your application.

City: Görlitz; Starting date (earliest): At the earliest possible; Duration: bis 31.10.2028; Remuneration: bei Vorliegen der persönlichen Voraussetzungen E 13 TV-L; Reference number: w26-166 / WiMi DZA; Closing date: 27/07/26

Tasks

As the server-side developer, you will develop and enhance software and protocols for the standards-compliant publication and dissemination of astronomical data. This in particular means, working on the DaCHS package (https://soft.g-vo.org/dachs), a globally-deployed system implementing and prototyping most Virtual Observatory protocols. A particularly relevant part of your job is to design and extend protocols and data formats within the Virtual Observatory and lead them to take-up in the IVOA.

- further scientific development of the DaCHS software: Design and implementation of publication workflows, ensuring software compatibility, and supporting new protocols and the new features they contain
- technical advice and support for DaCHS users, particularly in the area of troubleshooting
- collaboration with the Debian community to keep current versions of DaCHS in the Debian main repository
- collaboration with client-side developers, instrument engineers, as well as astronomers, with the aim of building solid standards within the Virtual Observatory and beyond, that work for all parties involved in the data publication

Requirements

- university degree (Master) in astronomy with a strong programming background, in computer science with an astronomy background or in a similar, relevant field of study with equivalent knowledge and skills
- excellent programming skills in Python; in addition you should be interested in touching codes in other programming languages such as C, Javascript, Java, Rust
- in-depth knowledge of the implementation of network services, both APIs and browser-facing
- Knowledge of database interface design, data formats, and data analysis
- ability to collaborate with international communities to establish and further develop IVOA interoperability standards
- preferably experience in asynchronous programming
- ideally, experience with IVOA standards

What we offer

- responsible and varied work within a dedicated team
- flexible working time models and und support in balancing family and career
- 30 days of vacation per year (based on a 5-day working week)
- further education and training programs
- discounted job ticket (also available as Deutschlandticket)
- participation in the supplementary pension scheme for employees in the public sector via VBL (Federal and State Government Employees Retirement Fund)

Application

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The university is a family-friendly university. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.
Application: Please submit your detailed application with the usual documents and quoting the job reference number “w26-166 / WiMi DZA” by July 27, 2026 (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf file to dza@tu-dresden.de or to:
TU Dresden, Center for Information Services and High-Performance Computing (ZIH),
Prof. Dr. Wolfgang E. Nagel, Helmholtzstr. 10, 01069 Dresden, Germany.

Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

TUD is a founding partner in the DRESDEN-concept alliance.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website:
https://tu-dresden.de/karriere/datenschutzhinweis.

More information at https://stellenticket.de/205294/TUD/
Offer visible until 27/07/26