

We are currently looking for a full-time

## Data Scientist / Bioinformatician for the Munich Data Science Institute

The open position is shared between the Munich Data Science Institute (MDSI) and the German Human Genome Archive (GHGA). The newly established MDSI at the Technical University of Munich (TUM) has an interdisciplinary and cross-faculty focus on the field of data science and machine learning. It operates as a facilitator and disseminator of state-of-the-art technologies and IT infrastructures for the whole university. Together with GHGA, a national secure and trustworthy network of data centers for archiving, processing, and serving human genome sequencing and other omics data for biomedical research, the MDSI is shaping the way how biomedical data will be stored, analyzed, and disseminated in the future using cloud technologies and state-of-the-art tools and workflows. The local GHGA team is hosted by the chair of Computational Molecular Medicine at the TUM with good interactions and collaborations with the local research community.

### Job description

As a bioinformatician, you will develop, benchmark, and run Next Generation Sequencing (NGS) workflows and analyze omics data in a high-throughput environment within GHGA. The NGS workflows will be utilizing the OpenStack platform jointly developed with the Leibniz Rechenzentrum (LRZ) and GHGA but also drive the enhancement of the cloud itself. As a member of the nationwide GHGA consortium, you will develop and apply a diverse range of state-of-the-art methodologies to improve NGS workflows and enhance and secure the local workflow deployment. As an MDSI member, you will organize hackathons and workshops and support diverse research data management activities within the TUM. By actively interacting with the local research community and by bringing your bioinformatic and research data management expertise to the TUM, you will be involved in the strategic development of future services at the TUM as a whole.

### Your responsibility

- NGS/Omics workflow development
- Application and benchmarking of state-of-the-art NGS workflows
- Developing, adapting, and deploying GHGA software stacks
- Secure the GHGA workflow deployment using OpenStack infrastructure
- System/Image/Container (Linux) administration
- Organizing workshops, hackathons, and seminars
- Supporting research data management activities at TUM
- Supporting grant proposals with research data management strategies

### Requirements

- University master degree or higher in Bioinformatics, Computer Science, or related subjects
- Hands-on experience with Next-Generation Sequencing pipelines (NextFlow, snakemake, WDL, ...)
- Proficiency in working in a UNIX-based ecosystem (partially administration)
- Proficiency in at least one programming language (Python, Java, R, Go, ...)
- Knowledge of research data management plans and related technologies
- Excellent communication skills in English (communication with consortia members)
- Ability to meet deadlines and manage priorities to handle a diverse workload

### Desirable but not required

- Experience in cloud compute infrastructure (OpenStack)
- Experiences in organizing workshops and hackathons
- Communication skills in German (communication with local partners)

### We offer

- Interesting and versatile workplace
- International, attractive, and interdisciplinary working environment
- Working with world-leading IT partners such as the Leibniz Rechenzentrum (LRZ)
- Salary according to TV-L including social benefits
- Flexible working hours and home-officing policy
- Possibilities for further scientific qualification and for personal development
- Disabled applicants with equal suitability and qualification will be given particular consideration
- The TUM is striving to increase the proportion of women and hence applications from women are therefore expressly welcomed

### Application

The full-time position is funded for max. 3 years till 30. September 2025 with a salary according to the TV-L (German academic salary scale). Employment at the earliest possible date.

Applications should include a cover letter, CV, and references and must be sent to [application@mdsi.tum.de](mailto:application@mdsi.tum.de) until 18. November 2022 referring to "Bioinformatician" in the email title.

As part of your application for a job at the Technical University of Munich (TUM), you submit personal data. Please note our data protection information in accordance with Art. 13 General Data Protection Regulation (GDPR) for the collection and processing of personal data in the context of your application <https://portal.mytum.de/kompass/datenschutz/Bewerbung/>. (scroll down for English version). By submitting your application, you confirm that you have read TUM's data protection information.

### More Information

<https://www.mdsi.tum.de/>  
<https://www.cs.cit.tum.de/cmm/>  
<https://ghga.dkfz.de/>  
<https://lrz.de>

Prof. Dr. Stephan Günemann  
Technische Universität München  
Munich Data Science Institute  
Walther-von-Dyck-Straße 10  
85748 Garching bei München