Chair of Computational Molecular Medicine
Department of Informatics
Technical University of Munich

We are currently looking for a full time

Senior bioinformatician for the German Human Genome-Phenome Archive

The German Human Genome Archive (GHGA) consortium is a national secure and trustworthy network of data centers for archiving, processing, and serving human genome sequencing and other omics data for biomedical research and is the German node for the federated European Genome-Phenome Archive (fEGA). Within GHGA, the Munich team hosted by the chair of Computational Molecular Medicine is leading the next-generation sequencing workflow development. The chair is located in the informatics department of the Technical University of Munich, one of the top-ranked European universities. It has strong links to other local scientists and institutions in biology and medicine but also close connections to the Leibniz Rechenzentrum (LRZ), one of the top 20 supercomputers in the world.

Job description

We are looking for a senior bioinformatician to 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 LRZ and GHGA but also drive the enhancement of the cloud itself. The successful candidate will not only be part of the local bioinformatics research and cloud management team but also be part of the nationwide GHGA consortium. Together with the different teams, the candidate will develop and apply a diverse range of state-of-the-art methodology to improve NGS workflows (at least 50% of the job) and enhance and secure the local Openstack infrastructure and workflow deployment. Overall this job includes a range of diverse tasks like workflow development and deployment, data management, cloud and system administration, and (web) software development.

Your responsibility (distributed within a small team)

- NGS/Omics workflow development
- Application and benchmarking of state-of-the-art NGS workflows
- Developing, adapting, and deploying GHGA software
- Collaborating with the GHGA consortium
- Secure (Openstack) infrastructure/workflow deployment
- System/Image (Linux) administration
- Maintaining and improving data and system security within the infrastructure

Requirements

- University master degree or higher in Computer Science, Bioinformatics, or equivalent
- Hands-on experience with Next-Generation Sequencing pipelines (NextFlow, snakemake, WDL, ...)
- Knowledge about state-of-the-art genomics data analysis pipelines used in research
- Proficiency in working in a UNIX-based ecosystem (partially administration)
- Proficiency in at least one programming language (Python, Java, R, Go, …)
- 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 developing and deploying complex software systems
- Experience in cloud compute infrastructure (OpenStack)
- Knowledge of data standards and data security measurements

We offer

- Interesting and versatile workplace
- Actively shaping how NGS data is analyzed in the future within Germany
- International, attractive, and interdisciplinary working environment
- Salary according to TV-L including social benefits
- Flexible working hours
- Possibilities 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 3 years till 30.09.2025 with a salary according to the TV-L (German academic salary scale). The position can start as early as 1st August 2022.

Applications should include a cover letter, CV, and references and must be sent to jobs-gagneurlab@in.tum.de until 15th July 2022 referring to “GHGA-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/. By submitting your application, you confirm that you have read TUM's data protection information.

More Information

https://www.cs.cit.tum.de/cmm/
https://tum.de
http://ghga.de/
https://lrz.de

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