



*Opportunities
for Talents*



Research Assistant (E13) Position in GeoAI, Big Data, and Research Data Management

The professorship “Big Geospatial Data Management” is seeking to fill a research assistant (E13) position to support research activities around geospatial artificial intelligence and spatial data management with a view toward modern didactics, starting as soon as possible.

About us:

The professorship for Big Geospatial Data Management concentrates on the methodology of acquisition, organization, compression, analysis, and visualization of georeferenced or geometric data in large scales. We put emphasis on methods of distributed computing, machine learning, image and text analysis, randomized data structures, high-performance computing, and quantum algorithms. Beyond this research, we aim at supporting computational thinking and computational problem-solving in the Earth sciences at large.

Your responsibilities:

You can support our team at the moment by taking responsibility in the area of **mobile AI and edge computing** for geospatial data acquisition in which we support (in a project with partners from the computer engineering domain) the development of novel AI chips made in Germany by providing use-cases and investigating the potential of “small” models embeddable to custom hardware. Together with students, we aim to set up a few demonstrator platforms for artificial intelligence in a mobile setting, e.g., on board of drones or robots as well as (maybe) on board of a satellite. Good knowledge of programming (C++ and Python) and interest in modern didactics (4CID model) is required.

This position provides the opportunity to teach students, to interact with project partners, to participate in international conferences, and to pursue a doctoral dissertation.

Your qualifications:

We are looking for motivated candidates holding a master degree in mathematics, computer science, physics, geoinformatics, data science, or related fields. You should be interested in independently investigating scientific questions and working in an international research team. Good programming skills (Python, C++, etc.) are required and knowledge of scripting

and automation tools is a plus. Interest in our planet Earth and interdisciplinary collaboration with Earth system scientists is required. Good English language skills are required (written and spoken).

Our offer:

- We offer a full-time position as research assistant (E13) with the opportunity to pursue a doctoral degree.
- Payment will be based on the Collective Agreement for the Civil Service of the Länder (TV-L), E13.
- Access to a modern and international workplace with a close connection to the research institute and aerospace industry in the Munich "Space Valley".
- TUM strives to raise the proportion of women in its workforce and explicitly encourages applications from qualified women.
- Applications from disabled persons with essentially the same qualifications will be given preference.

Your application:

If you are interested in working in our team, please send your application together with a CV and supporting documentation as a single PDF file to us no later than **25 August 2023**.

Email address: applications.bgd@ed.tum.de

Do not hesitate to contact Prof. Dr. Martin Werner (martin.werner@tum.de) or Dr. Hao Li (hao_bgd.li@tum.de) for any questions you may have. If you apply in writing, we request that you submit only copies of official documents, as we cannot return your materials after completion of the application process.

As part of your application, you provide personal data to the Technical University of Munich (TUM). Please view our privacy policy on collecting and processing personal data in the course of the application process pursuant to Art. 13 of the General Data Protection Regulation of the European Union (GDPR) at <https://portal.mytum.de/kompass/datenschutz/Bewerbung/>. By submitting your application, you confirm to have read and understood the data protection information provided by TUM.

Find out more about us at <https://www.bgd.lrg.tum.de/>