



# Research Associate Position in Data Management and GeoAI

**The professorship Big Geospatial Data Management is seeking to fill a research associate position (doctoral candidate or postdoc) to support research activities around geospatial big data and geospatial artificial intelligence, with a focus on defining and measuring a spatio-temporal notion of quality for map data.**

## About us:

The professorship Big Geospatial Data Management concentrates on the methodology of acquisition, organization, compression, analysis, and visualization of georeferenced or geometric data on 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 to support computational thinking and computational problem-solving in the Earth sciences at large.

## Project description:

The position is fully funded (TVL E13, 100%) by the German Research Foundation (DFG) and the intended research focuses on defining and measuring a spatial and spatiotemporal notion of quality for map data. We want to establish processes and tools allowing the acquisition of reliable and up-to-date information about the quality of open geodata through the combination of machine learning and multimodal remote sensing.

## Your responsibilities:

- Research related to the topics of the project and beyond
- Taking a leading role in pursuing the objectives of the project by proactively developing solutions
- Regular publication and presentation of research results in peer-reviewed journals and conferences

## Your qualifications:

- Completed master's degree in mathematics, computer science, physics, geoinformatics, data science, or related fields
- Ability to work independently, willingness to learn and acquire new skills

- Interest in working in a highly international research team
- Very good programming skills (Python, C++, etc.) are essential
- Fluent English language skills (written and spoken) are required

### Our offer:

- A full-time position (100%, TVL-E13) as a research associate for 3 years
- Participation in visionary research projects
- The opportunity to pursue a doctoral degree
- Access to a modern and international workplace with a close connection to the research institutes and industry in the Munich "Space Valley"

Payment will be based on the Collective Agreement for the Civil Service of the Länder (TV-L), E13.

### Your application:

The professorship Big Geospatial Data Management (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.

If you are interested in working in our team, please send your application consisting of a motivation letter, curriculum vitae, copies of your degrees and transcripts, employment certificates, and any other relevant documents as a single PDF file to us no later than **18 December 2025**.

Email address: [applications.bgd@ed.tum.de](mailto:applications.bgd@ed.tum.de)

Do not hesitate to contact Prof. Dr. Martin Werner ([martin.werner@tum.de](mailto:martin.werner@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 that you have read and understood the data protection information provided by TUM.

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