

*You are a highly motivated person who loves spatial data science? You want to use your expertise for the benefit of society and the environment – in particular stimulating Climate Action? You want to improve the availability and quality of geographic information for Climate Action and develop geoinformatics methods used for related open, non-profit applications? Then we actually might have a suitable and interesting job for you!*

## Senior Spatial Data Scientist for Climate Action (m/f/d, up to 100%)

HeiGIT gGmbH is a non-profit start-up that aims to transfer technology and conduct applied research in geoinformatics to benefit society and the environment. We work to close the gap between knowledge about climate change and action to mitigate it. To this end, HeiGIT has established a new dedicated focus area on Climate Action.

We are looking for a highly motivated and experienced spatial data scientist to work with us on Climate Action topics, such as creating high-resolution spatial indicators of climate change readiness and greenhouse gas emission maps.

**Your tasks** are related to generating spatial climate change readiness indicators or greenhouse gas emission estimates in a very high spatial resolution. Depending on your experience this includes – together with the teams at HeiGIT and the GIScience research group at Heidelberg University

- Conceptualization and implementation of bespoke high-resolution spatial indicators and GHG emission models
- Use of advanced machine learning methods to enrich and complement the datasets
- Analysis and enhancement of crowdsourced geodata like OpenStreetMap (OSM) in combination with other spatial data like remote sensing, government data, social media and citizen science data
- Data fusion of the above-mentioned data sources
- Data engineering and management
- Validation and estimation of data quality and uncertainty
- Support communication and visualization of the results by co-developing an open-source platform providing web and mobile applications

Close collaboration and communication with team members & stakeholders is your favourite way of working. Your in-depth knowledge of your favourite programming language and tools will be valued, but you'll also be expected to help with whatever the team needs to work towards its goal.

### Your Expertise

- PhD and an above-average university degree in one of the subjects such as Geoinformatics, Geography, Environmental Studies, Environmental Physics, Computer Science or similar.
- Knowledge on volunteered geographic information (VGI), especially OpenStreetMap (OSM).
- Excellent & demonstrated broad methodological skills & research experience in topics such as Spatial Data Science & Machine Learning.

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Prof. Dr. Alexander Zipf  
Dr. Gesa Schönberger

- Solid Computer Science and programming skills (esp. Python). Experience in collaborative development (e.g. git) or working with spatial database systems (e.g. PostGIS) is beneficial.
- Experience in environmental modelling and / or domain-specific knowledge related to Climate Change or Climate Action and Sustainability.
- Hands on experience in evaluating and developing new approaches from literature and actively implementing new concepts.
- Excellent communication and collaboration skills.
- German language skills are preferred, but English only is possible.

## We offer

an attractive position in an interdisciplinary team in a highly dynamic and growing area with real-world impact on society and the environment. HeiGIT gGmbH is cooperating closely with the GIScience Research Group at Heidelberg University, which is a member of the Interdisciplinary Center for Scientific Computing (IWR) and a founding member of the Heidelberg Center for the Environment (HCE) at Heidelberg University. We offer a stimulating interdisciplinary research environment with many personal development opportunities. HeiGIT employees can, in agreement with the rest of the team, work remotely for up to half of their time.

The position is to be filled as soon as possible and, for administrative reasons, initially limited to 30.06.2028. Please send your application, including CV, certificates, references, etc., in digital form as PDF as soon as possible to [jobs@heigit.org](mailto:jobs@heigit.org).

Please note our [data protection information](#) for applicants.

## About HeiGIT

HeiGIT (the Heidelberg Institute for Geoinformation Technology) performs applied research relating to geographic information. Results and data are made freely available for the benefit of the environment and society through stakeholders such as researchers and aid organizations & associations.

The core foci of HeiGIT range from supporting humanitarian missions with customized geodata, to developing intelligent routing solutions for disasters or heat waves. HeiGIT also implements innovative methods from the fields of spatial data processing and machine learning to analyze, enrich, and visualize geodata (e.g. OpenStreetMap data), as well as offering practical data analysis for climate protection initiatives.

HeiGIT gGmbH was founded in 2019 as an affiliated institute of Heidelberg University. Its core funding comes from the Klaus Tschira Foundation.

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