EXIST Forschungstransfer Project
GeoInsight: An Intelligent Earth with a digital brain

We want to achieve a better understanding of our earth by creating a digital twin of our planet. There is a plethora of data sources that cover many facets about our social, economic and ecological life. These data sources often cover one specific aspect, in a defined format and exact representation. To gain a better understanding and new insights derived from data, it is necessary to integrate and combine various data sources. However, the extraction of information to answer complex geographic problems is cumbersome and sometimes even impossible with our current information systems for spatial data. With continued digitization the data volume and velocity will increase, which creates a demand for a platform that allows the integration of many data sources before our data lakes become murky and information and insights locked in.

With our Intelligent Earth spatial analysis will be simplified, and the proposed intelligent earth will create opportunities that could not be realized with current technology. When many data sources data integration is important to understand our planet, because value and insights about our planet are generated by considering all facets of life, and that necessitates an effective way to bring multiple data sources together to gain information.

We are looking for two research assistants to work with us on technical aspects of the project ranging from data preparation to machine learning as well as marketing and project management.

Please find below two open positions at the Geographisches Institut of Ruhr-University Bochum and contact Mrs. Ana Gago da Silva (ana.gagodasilva@ruhr-uni-bochum.de):

- Research Assistant (m/f/d) – Geomatics – min. 8 hours per week
- Research Assistant (m/f/d) – Marketing – min. 8 hours per week
Research Assistant (m/f/d) – Geomatics – min. 8 hours per week

Your Profile

As a Research Assistant, you will collaborate closely with the team in various field of data collection, data processing, machine learning, visualization and data management. Your role includes Python and SQL programming for the backend as well as web development using javascript and web frameworks. The tasks will be adapted according to your technical skill level. In addition, you will carry out any other relevant task to the research project according to workload and your interest.

Job description

This is a remote working position but may require the candidate to join meetings in person at RUB if needed. The Research Assistant will undertake the following tasks:

- Assist in data collection from various resources (satellite imagery repositories, scientific reports, etc.). It would entail synthesizing information from multiple sources into one database and coordinating with the rest of the team
- Identify new data sources to support the research project
- Assist in data processing and analysis for the project
- Assist in preparing technical notes for data collection, processing, and analysis

Requirements

- Strong GIS and/or remote sensing skills and proficiency
- Determined, organized and detail oriented
- Good verbal, written, and interpersonal skills
- Eagerness to learn & share knowledge
- Ability to work independently and remotely
- Languages: English Independent User level is required

Nice to have

- Knowledge of programming languages such as Python
- Familiar with database technologies and tools (PostgreSQL
- Familiar with APIs and endpoint creation
- Professional international experience