

Stellenausschreibung

Reg.-Nr. 378/2017

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FRIEDRICH-SCHILLER-
UNIVERSITÄT
JENA

Job advertisement Reg. 378 / 2017

As part of a collaborative project with the Institute of Data Science of the German Aerospace Center (DLR), a PhD or Postdoc position will be filled at the Heinz-Nixdorf-Professorship for Distributed Information Systems at the Institute of Computer Science from the earliest possible date in the field of "Semantic Description and (semi-) automatic Annotation of Citizen science Data ".

The project:

Citizen-science data hold enormous potential. For example, satellite images can be supplemented with in-situ data (data collected directly on-site) and thus provide a basis for the calibration and validation of phenological models. Contributions from social media contain valuable information, e.g., allow a better assessment of the current situation in disaster scenarios.

A manual processing and analysis of the data by researchers requires enormous effort due to the often very large amount of data, and their complexity and heterogeneity (images, tweets, various types of measurement data, etc.). Computers can help scientists do this work by, for example, enabling efficient searches on large amounts of data, helping extract information from data, and aggregating and evaluating various data sources. The basic prerequisite for this is that the meaning of the data is accessible for computers. Here methods of the Semantic Web are used. As part of the project, a semantic description model for measurement and observation data obtained from citizen scientists is to be developed and realized. This model should cover not only content-related aspects but also information on the quality, trustworthiness and provenance of the data. For this model, generic tools for semantic annotation as well as for querying annotated data will be developed. All mentioned works should be realized in the context of concrete citizen science projects, which serve as a case of application.

Your tasks:

- Conception and implementation of a semantic description model for citizen science measurement and observation data
- Development and prototypical realization of a software component for the acquisition of semantically annotated citizen science data
- Development and prototypical realization of a software component for providing and querying semantically annotated citizen science data
- active participation in the conception, development and implementation of citizen science projects

We expect:

- a successfully completed academic degree (Master / Diploma or equivalent) or PhD in computer science or related fields
- Semantic Web experience, such as ontology development, integration, or modularization
- Knowledge of at least one object-oriented programming language
- Knowledge and experience in Citizen Science and / or Earth Observation are beneficial
- Experience with software development in teams is an advantage
- very good knowledge of spoken and written English
- Excellent communication and collaboration skills
- Experience working in interdisciplinary teams is an advantage
- very good problem-solving ability

We offer:

- an interesting and diverse task
- a modern, international and inclusive work environment
- the opportunity for further scientific qualification (for example in the context of a doctorate or habilitation)



The position is limited to three years. It is a full-time job. The remuneration is based on the provisions of the Collective Agreement for the Public Service of the Länder (TV-L) in accordance with the personal requirements up to salary group 13. Handicapped persons are preferably considered with the same suitability, aptitude and professional qualifications. Please send your application with complete application documents stating the Registration number until 15.02.2018 as **one** PDF file to carola.eichner@uni-jena.de.

If you have any questions, please contact Dr. Friederike Klan (friederike.klan@dlr.de) or Dr. Frank Löffler (frank.loeffler@uni-jena.de).