

15.06.2022

Job advertisement No. 36/2022

The National Research Data Infrastructure ([NFDI](#)) is an outstanding infrastructure initiative for the science communities in Germany with the aim to harness the great potential of Research Data as a valuable resource for science and research. Since 1st October 2020, the first round of NFDI consortia receives funding for a period of five years, with the option of a five-year extension. TIB plays a key role in shaping the NFDI from the very beginning.

Within this network, the [Technische Informationsbibliothek \(TIB\)](#) – Leibniz Information Centre for Science and Technology – Program Area C, Research and Development, is looking to employ a

Scientific Software Engineer / Ontology Engineer (m/f/d)

to join the [Lab Linked Scientific Knowledge](#) at the earliest possible opportunity.

The position initially limited to 2 years with envisioned extension. The regular weekly working time is 39.8 hours (full-time). The position is only suitable for part-time work to a limited extent. The remuneration is based up to [pay scale group 13 TV-L](#), depending on the successful applicant's qualifications and depending on the assigned tasks and responsibilities.

Your challenge

The Lab Linked Scientific Knowledge develops tools and methodologies to support scientists in the digitization of their research. This includes tools to document research activities and the acquisition, processing, analysis, storage, publication and re-use of research data.

Your tasks will be the development of knowledge management systems and tools for semantic annotation of data using ontologies. Other duties will include converting data to RDF as well as storage, retrieval, and visualization. We expect you to be able to independently install, run, and maintain necessary software to build semantically annotated data repositories. This requires solid knowledge of virtualization platforms such as Docker as well as databases such as Virtuoso, Apache Jena, MongoDB and others.

With your work in an interdisciplinary team, you will make an important contribution to information infrastructure projects of Collaborative Research Centers from the engineering sciences as well as [NFDI4Chem](#), the Chemistry Consortium in the National Research Data Infrastructure (NFDI).

Your tasks will focus on

- Development, curation, and integration of ontologies for chemistry and engineering.
- Development of controlled vocabularies and classifications to standardize data for research data management (RDM).
- Development of semantic tools for handling ontologies and semantification of research data.
- Development of knowledge management systems in the context of information infrastructure projects of collaborative research centres from engineering sciences.
- Community outreach and joint development and curation of ontologies with domain experts and ontology users.
- Organization of ontology workshops for and with the scientific community.

Your qualities

The successful candidate will have experience in computer science, chemistry or engineering sciences. You are familiar with controlled vocabularies and ontologies to describe domain concepts. Excellent verbal and written communication skills are essential in order to collaboratively develop ontologies together with the scientific community during workshops and discussions. You should be able to think creatively, grasp new knowledge quickly, and be interested in innovative software systems and in mastering complex challenges.

Requirements

- Completed university degree (Bachelor's or Master's degree) in a relevant field of study such as computer science, engineering sciences, chemical informatics, bioinformatics, information sciences or comparable.
- Excellent knowledge of modern programming languages (especially Python, Java, PHP as well as JavaScript and HTML) and modern software development methods.
- Proven skills in software development in a team.
- Experience in developing, integrating and publishing controlled vocabularies, terminologies and ontologies
- Knowledge in ontology development and with core semantic technologies (RDF, OWL, SPARQL).
- Solid experience in using RDF and SPARQL for data modeling and querying.
- Experience in knowledge representation and logic, semantic technologies, and web engineering.
- Knowledge and hands-on experience with ontology tools such as Protegé, WebProtegé or WebVOWL.
- Excellent verbal and written communication skills.

The following will be considered an advantage

- Experience with WikiMedia software environments, especially Semantic MediaWiki.
- Proficiency in the German language.
- Experience with CI/CD workflows in GitLab.
- Experience in DevOps and/or system administration.
- Familiarity with and interest in scientific data and metadata management.
- Knowledge of tools and services for research data management.

What we offer

Our mission is to keep rethinking and innovating the provision and use of research data and information. In [TIB's Research and Development Department](#), you have the opportunity to advance your career in a sizable, dynamic and excellent environment. We provide a scientifically and intellectually inspiring environment with an entrepreneurial mindset embedded in a [leading technical university](#) and one of the largest technical information centres being part of the [Leibniz Association](#). TIB collaborates closely with the L3S Research Centre at Leibniz University Hannover, one of the world's leading research institutes in the field of Web & Data Science, within the Leibniz [Joint Lab](#) Data Science & Open Knowledge. Last but not least, we attach great importance to an open, creative and fun work atmosphere.

Furthermore, we offer

- Financing for necessary equipment, conference and research visit travel.
- Work in the context of national and international research and innovation projects.
- A portfolio of technology components, including [ORKG](#), [OpenResearch.org](#), [TIB AV-Portal](#), [DBpedia.org](#), among others.
- A modern workplace in a central location of Hanover with a collegial, attractive and versatile working environment.
- A comprehensive and in-depth training.

- Flexible working hours (flexitime) as well as [offers for reconciling work and family life](#) such as mobile work and remote work options.
- An employer with a wide range of internal and external further education and training measures, workplace health promotion and a supplementary pension scheme for the public sector ([VBL](#)).
- Discount for employees in the canteens of the [Studentenwerk Hannover](#) as well as the possibility to use the various offers of the [University Sports Hannover](#).
- A job in the public service oriented towards the common good with a salary in [pay scale group 13 TV-L](#) according to the provisions of the collective agreement for the public service in Germany (TV-L), including a special annual payment and 30 days of vacation per year.

Questions regarding the content of the position can be addressed to Dr. Oliver Koepler, head of Lab Linked Scientific Knowledge, by mail at oliver.koepler@tib.eu.

How to apply

We look forward to receiving your application. To submit your application, please click [here](#).

Paper applications are also possible on an equal basis. In this case, please send your complete application documents with the subject **36/2022** before **July 14, 2022** addressed to

Technische Informationsbibliothek (TIB)
Personalservice
Herrn Daniel Eilers
Welfengarten 1 B
30167 Hannover
Germany

or alternatively as a single PDF document file to bewerbung@tib.eu. For applications in digital form, please send a PDF file with a maximum size of 10 MB.

In the case of foreign university degrees, it is mandatory to submit a Statement of Comparability from the Central Office for Foreign Education (ZAB) for the final assessment of the hiring requirements during the hiring process ([link for more information](#)). A fee will be charged for this. This obligation does not apply if the foreign university degree has already been assessed by an expert and is listed in the ANABIN database of the ZAB as an equivalent university degree ([link to ANABIN database](#)).

Who we are

TIB, being part of the Leibniz Research Association, is with around 600 employees one of the largest technical information centres in Germany, having three main functions:

1. Acting in the capacity of the Leibniz Information Centre for Science and Technology, our forward-looking services secure the infrastructural requirements for providing researchers in science and industry with high-quality information and literature.
2. Carrying out cutting edge research to further expand TIB's role as a German information centre for the digitisation of science and technology.
3. Offer library services for the Leibniz University Hannover.

TIB is an equal opportunity employer, providing ideal working conditions, and continuously taking action to enable its employees to combine career interests with family life.

Severely disabled candidates with comparable qualifications will be given preferential treatment. We welcome applications from all nationalities.

Please note that your application documents will not be returned and application and travel costs cannot be reimbursed.

Please indicate in the subject line of your application through which job board you became aware of our offer.

For more information about the TIB, please visit: www.tib.eu/en/