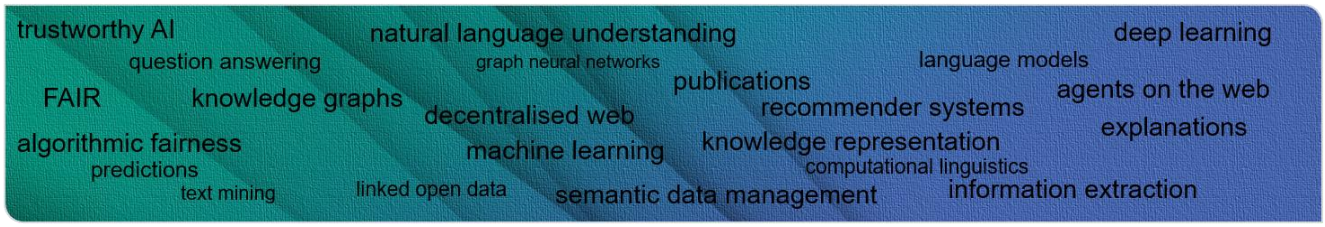
Karlsruhe Institute of Technology (KIT)
Institute AIFB
Research Group Web Science
Kaiserstraße 89
76133 Karlsruhe
http://aifb.kit.edu/web/Web_Science

PhD Student and Research Associate (f/m/d)
"Explainable and FAIR Artificial Intelligence for Smart Cities"



Job description:

KIT is one of the world's leading research institutions in the field of technology. The Web Science research group at the KIT Institute AIFB is known worldwide for its research in the field of knowledge representation and, headed by Dr. Michael Färber, deals with the development and application of trustworthy Artificial Intelligence. The core topics include the semantic representation of knowledge through knowledge graphs, corresponding information systems (represented by Dr. Tobias Käfer's Junior Research Group), machine learning, natural language processing, and the combination of these topics.
The research group works closely with the Information Process Engineering (IPE) group, an Artificial Intelligence research division of the FZI Research Center for Computer Science (FZI). There are also numerous connections to national and international research institutions and companies. An excellent infrastructure with servers and high-performance computers (e.g. HoreKa, one of the 15 fastest computers in Europe) is available for research.

For the "Web Science" research group, we are looking for a PhD student and research associate for the KIGLIS project (http://www.kiglis.de/). The KIGLIS project is about Artificial Intelligence for the optical networks of a Smart City, where the group leads the Artificial Intelligence research part. In the project, we develop and apply Artificial Intelligence methods for all parts of the communication in a smart city, ranging from fiber and 5G network infrastructure to applications (e.g. autonomous driving). As considerable amounts of data are processed during this research, FAIR data stewardship is a side-topic to achieve reproducible Artificial Intelligence. The project is in collaboration with renowned labs from academia and industry.
The job entails the following **tasks**:

- Performing research in at least one of the following areas: explainable AI, knowledge graphs for FAIR data stewardship, spatio-temporal learning, graph neural networks, quantum computing, neuromorphic neural networks, deep learning.
- Contributing to the group's teaching (in English or German) is appreciated.
- Presenting research results and prototypes in the context of publications and talks on national and international level.

Qualification:

You have

- A very good master's degree in computer science, information systems, industrial engineering, electrical engineering, physics, mathematics, or a related subject until the start of the position.
- Expertise and interest in the above-mentioned areas.

- A high degree of personal responsibility, motivation, commitment, and excellent teamwork skills.
- Good presentation skills.
- A good knowledge of English (written and oral form).
- A good command of German is a plus, and can get acquired on the job

We offer:

We offer
- A modern workplace with access to the excellent infrastructure of the KIT and the research group. This includes access to servers and high-performance computers and a work station.
- An open and pleasant working atmosphere
- A wide-ranging, financially supported further training offer, also “outside the box”.
- An additional pension according to VBL and a canteen.

Salary:

The remuneration occurs on the basis of the wage agreement of the civil service in TV-L (E13, 100%; around € 51,000 gross per year).

Institute:

KIT Institute for Applied Informatics and Formal Description Methods (AIFB)

Contract duration:

Limited to one year with an option to extend for a further three years.

Starting date:

As soon as possible (flexible).

Application up to:

January 9, 2022.
We recommended that you submit your application as early as possible. Applications after the deadline may or may not be considered.

Contact person in line-management:

Please contact Dr. Tobias Käfer (tobias.kaefer@kit.edu) or Dr. Michael Färber (michael.faerber@kit.edu) in case of questions.

Application:

Please send your detailed application with cover letter, CV, copies of degrees and certificates in one PDF file to
Beate Kühner (kuehner@kit.edu),
Dr. Tobias Käfer (tobias.kaefer@kit.edu), and
Dr. Michael Färber (michael.faerber@kit.edu).

We prefer to balance the number of female and male employees.
Therefore, we kindly encourage female applicants to apply for this job.

Recognized severely disabled persons will be preferred if they are equally qualified.

KIT is certified as a family-friendly university (familienfreundliche Hochschule) and offers part-time employment, leaves for family-related reasons, dual career options, and individual coaching for family-work balance.

Karlsruher Institut für Technologie
Personalservice