Technische Universität Berlin

Technische Universität Berlin offers an open position:

3 positions - Research Assistant - salary grade E13 TV-L Berliner Hochschulen- 1st qualification phase (PhD candidate)

part-time employment may be possible

Faculty IV - The Berlin Institute for the Foundations of Learning and Data (BIFOLD)
Reference number: IV-159/25 (starting at the earliest possible / for 5 years / closing date for applications 16/05/25)

Working field:

In the context of BIFOLD -- in cooperation with other institutions from Berlin and internationally -- we are investigating a number of different methods for declarative specification and automatic optimization, parallelization and hardware adaptation of analysis procedures on large, heterogeneous data sets with high data rates. Our research focuses on data analysis and programming models that allow analysts or data scientists to develop analyses even without knowledge of system programming. Among other things, we want to investigate how automatic optimization can be used to efficiently run a data analysis program without changes on massively distributed environments as well as on simple CPUs or multicore computer systems. One of the main focus is on the efficient processing of complex data analyses (e.g., iterations and distributed state computations) that occur in machine learning, signal processing, speech processing, or mathematical programming applications. The technologies developed within BIFOLD will be validated with partners using several use cases -- for example in the fields of information-based medicine or information marketplaces -- and made available to the public as an open source project. Within the scope of these activities, there is also the possibility of extensive cooperation with leading research institutions and companies.
The BIFOLD focuses on **Big Data Management, Big Data architectures and processing of high data volumes and low latency, Novel hardware architectures for information management; Scalable processing and optimization of declarative data analysis programs; Scalable infrastructures for data science and artificial intelligence**. Teaching tasks.

Requirements:

- Successfully completed university degree (Master, Diplom or equivalent) in computer science, industrial engineering, or business informatics.
- Knowledge in the field of system programming and system evaluation
- Knowledge of mathematics, statistics, analytics and project management
- The ability to teach in German and/or English is required; willingness to acquire the missing language skills

Desirable:

- Willingness to work in a leading research area at the forefront of technical innovation
- Interest in establishing the research results achieved in practical application
- In-depth knowledge of database technology development
- Advanced knowledge of programming languages and compiler construction, distributed systems and benchmarking

Please send your written application with the **reference number** and the usual documents **exclusively by e-mail** to Technische Universität Berlin - Die Präsidentin - Fakultät IV, Institut für Softwaretechnik und Theoretische Informatik, DIMA, Prof. Dr. Markl, Sekr. EN 7, Einsteinufer 17, 10587 Berlin; by e-mail to **jobs@dima.tu-berlin.de**.

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guaranty for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/ .

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities. Applications from people of all nationalities and with a migration background are very welcome.

The vacancy is also available on the internet at
https://www.personalabteilung.tu-berlin.de/menue/jobs/

Zertifikat seit 2008
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