



**Technische Universität Berlin**



## **Research Associate (PostDoc) - salary grade E13 TV-L Berliner Hochschulen - 2nd qualification phase (to take up a full professorship for the first time)**

Part-time employment may be possible

**Faculty IV - Electrical Engineering and Computer Science, Institute of Telecommunication Systems / Distributed and Operating Systems (DOS)**

**Reference number:** IV-454/25 (starting at the earliest possible / for 5 years / closing date for applications 07/11/25)

### **Your responsibility:**

Research and teaching tasks in the research group Distributed Operating Systems (DOS). Development and experimental evaluation of methods for the interpretability and capability analysis of internal representations of LLMs, aimed at systematically detecting misbehavior using anomaly detection and identifying its causes through root cause analysis. Design and implementation of prototypes to investigate and explain model behavior. Publication of research results in international conferences.

### **Your profile:**

- Successfully completed university degree (Master, Diplom or equivalent) and a PhD in Computer Science
- Proven track record of scientific publications at international conferences
- Several years of experience in industry research projects, particularly in the analysis and modeling of large datasets for the detection of misbehavior
- Solid research experience with Large Language Models (LLMs), particularly in their interpretability, capability analysis, and the study of their internal representations and structures, with the aim of systematically understanding the causes and mechanisms of misbehavior. This requires, among other things, very good knowledge in anomaly detection, root cause analysis, as well as machine learning and artificial intelligence methods, applied specifically to the identification and analysis of misbehavior in complex models.
- The ability to teach in German and/or in English is required; willingness to acquire the respective missing language skills
- Excellent programming skills in Python and proficiency with modern machine learning frameworks (e.g., PyTorch)
- Experience with scalable data analysis, distributed systems, and cloud infrastructures
- Strong experience in publishing and presenting scientific results as well as in teaching and mentoring students
- Ability to conduct independent scientific work and to successfully collaborate with industry partners desirable

### **How to apply:**

Please send your written application with the **reference number** and the usual documents (CV, list of grades, language certificates) to Technische Universität Berlin - Die Präsidentin - Fakultät IV, Institut für Telekommunikationssysteme, FG Distributed and Operating Systems (DOS), Herrn Prof. Kao, online only: [odej.kao@tu-berlin.de](mailto:odej.kao@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/](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.jobs.tu-berlin.de>

