


Technische Universität Berlin


University professorship (pay scale W3) in the field of “Theoretical Foundations of Deep Learning”

Faculty IV - Electrical Engineering and Computer Science, Institute of Software Engineering and Theoretical Computer Science

Reference number: IV-521/25 (starting at 01/01/26 / permanent / closing date for applications 12/01/26)

About us:

With around 35,000 students, around 350 professorships, and around 7,000 employees, the **Technische Universität Berlin** is a university of excellence within the Berlin University Alliance. **BIFOLD (Berlin Institute for Foundations of Learning and Data)** at Technische Universität Berlin, Berlin's competence center for artificial intelligence, is one of five national university centers for artificial intelligence in Germany. Its goal is to advance fundamental research, education, and technology transfer in big data and machine learning, as well as at the interface between the two. BIFOLD also aims to strengthen Berlin's position as a global leader in these fields. www.bifold.berlin

We value the diversity of our members, pursue the goals of equal opportunity, and are certified as a family-friendly university.

Your responsibility:

The professor will carry out research and teaching in one or several of the following fields:

- theory of supervised and unsupervised deep learning and generative AI methods,
- foundations for the statistical properties and optimization of deep learning,
- inclusion of a priori knowledge in the training and the design of architectures,
- theoretical exploration of how invariances, symmetries, equivariance properties etc. can be modeled or learned with applications in the sciences,
- theoretical foundations of deep learning architectures and inference principles,
- foundations of generative AI.

The successful candidate will primarily be tasked with research activities in accordance with the Federal Government-State Agreement. A reduction in teaching obligations is planned in accordance with § 1 in conjunction with § 7 LVVO. As an internationally renowned university, we require the ability to teach in German and English, or the willingness to acquire the necessary language skills within a reasonable period of time.

The successful candidate will be expected to offer and supervise research activities for final theses and doctoral theses. The professorship also entails the acquisition and management of third-party funded projects and close cooperation with the existing BIFOLD research groups.

Further responsibilities include leading and managing the research group and its staff; supporting the advancement of junior scholars, women, and diversity; knowledge and technology transfer; initiatives to promote internationalization; gender and diversity competence and sustainability-oriented action; as well as committee work are expected.

Your profile:

The employment requirements pursuant to § 100 ff. BerlHG must be met. These include:

- a completed, relevant university degree with a specialization in computer science,
- special aptitude for academic work, which is usually demonstrated by the quality of a doctorate in the field of machine learning/deep learning,
- additional academic achievements, e.g., positively evaluated junior professorship, habilitation or habilitation-equivalent achievements, and
- pedagogical aptitude, demonstrated by your teaching portfolio, see <https://www.tu.berlin/go209650/>

Further requirements are several years of subject-specific teaching experience, a demonstrable and internationally outstanding research profile in at least one of the above-mentioned research areas (supported by relevant publications), experience in national and international research cooperations (demonstrated by corresponding stays abroad and/or significant involvement in projects).

Profound knowledge with applications of deep learning in computer vision or/and the sciences, adaptation of domain knowledge for deep learning, fundamentals of deep learning architectures and inference principles, representation learning, as well as the technical and systematic implementation of novel concepts, especially in the context of open source or data analytics platforms are expected.

How to apply:

The Technical University of Berlin is seeking to increase the proportion of women in research and teaching and therefore strongly encourages qualified female applicants to apply. Severely disabled applicants will be given preferential

consideration if equally qualified. Applications from people of all nationalities and with a migrant background are welcome.

TU Berlin would like to make its appointment procedures more equitable and has developed a form for taking academic age into account in appointment procedures. Please fill out the form and submit it as part of your application documents: <https://www.tu.berlin/en/stabbk/berufungen/berufungsverfahren/academic-age>

Please send your application **by 12/01/2026**, quoting **reference number IV-521/25** with the usual documents (cover letter, cv, certificates, research concept, teaching portfolio, list of publications, the 5 most important publications, and proof of completed or applied-for third-party funded projects, the form for equal opportunity in the appointment process) **by email in PDF format to the dean of Faculty IV, Prof. Marc Alexa at berufungen@eecs.tu-berlin.de.**

By submitting an online application, you as an applicant give your consent to your data being processed and stored electronically. We would like to point out that if you send your application electronically without protection, we cannot guarantee the security of the personal data transmitted. Information on data protection regarding the processing of your data in accordance with the GDPR can be found on the Human Resources Department website:

<https://www.tu.berlin/abt2-t/services/rechtliches/datenschutzerklaerung-bei-bewerbungen>

The vacancy is also available on the internet at:

<https://www.jobs.tu-berlin.de>

