



Technische Universität Berlin



Technische Universität Berlin offers an open position:

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

part-time employment may be possible

Faculty IV - Institute of Computer Engineering and Microelectronics / Computer Vision and Remote Sensing

Reference number: IV-73/25 (starting at 01/05/25 / limited for 5 years / closing date for applications 21/03/25)

Working field:

The Computer Vision and Remote Sensing group at TU Berlin is seeking a PhD researcher to contribute to our mission of extracting semantic and geometrical understanding of the world from camera-based data. The position will involve collaboration in both research and teaching. We are particularly interested in candidates exploring methods that bridge semantic understanding, 3D reconstruction, and spatiotemporal modeling.

Potential research topics include:

- Novel techniques for integrating geometric and semantic understanding
- 3D representations such as point clouds, Gaussian splatting, 3D generative models, and world models
- Camera pose and scene reconstruction under challenging settings (e.g., non-rigid or dynamic environments)
- Deep Learning-based approaches for dynamic and static scene understanding
- Unsupervised (e.g. Self-supervised or weakly supervised) representation learning from video and image data
- Temporal modeling of objects and scenes in 2D/3D spaces
- Neural implicit representations (e.g., signed distance functions, radiance fields)

Application areas could include but are not limited to science of intelligence (c.f. DFG excellence cluster at TU Berlin), action classification for behavioral analysis, scene understanding in the context of world models, medical image analysis, or biological systems modeling. We are always open to other innovative domains. Teaching tasks.

Requirements:

- Successfully completed scientific university studies (master's degree, Diploma or equivalent) in Computer Science, Computer Engineering, or related discipline
- Very good programming skills in Python
- Intensive up to date knowledge and experiences in computer vision or pattern recognition or applied mathematics
- The ability to teach in German and/or English is required; willingness to acquire the missing language skills.

Desirabe:

- Interests in cooperation with natural and social sciences research groups

Please send your written application with the **reference number**, a motivation letter, and the usual documents to Technische Universität Berlin, Prof. Dr.-Ing. Olaf Hellwich: olaf.hellwich@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/ or quick access 214041.

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.

Technische Universität Berlin - Die Präsidentin - Fakultät IV, Institut für Technische Informatik und Mikroelektronik, FG Computer Vision and Remote Sensing, Prof. Dr.-Ing. Hellwich, Sekr. MAR 6-5, Marchstr. 23, 10587 Berlin

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

