Technische Universität Berlin



Technische Universität Berlin offers an open position:

### Student assistant (40 hours per month)

# Fakultät V: Verkehrs- und Maschinensysteme, Institut für Werkzeugmaschinen und Fabrikbetrieb, Industrielle Informationstechnik

**Reference number:** V-SB-0041-2025 (starting at the earliest possible / limited until 10.12.2027 / closing date for applications 25/06/25)

#### Working field:

We are looking for a research assistant to support the INSPIRE project, which focuses on sustainable product design using hybrid decision support systems. Within this project, we are working on two industry-related use cases in collaboration with our practice partners: the design of printed circuit boards at Siemens and the design of high-precision gears for dental treatment devices at Dentsply Sirona. The project aims to develop a system leveraging multimodal AI to support sustainable product design through hybrid decision-making. Responsibilities:

- Conducting literature research (10%)
- Assisting in the modeling of design processes (10%)
- Supporting the preparation of datasets (20%)
- Contributing to the development of multimodal AI (40%)
- Assisting in the creation of a guideline for the use of hybrid decision support systems in the product design phase (20%)

#### **Requirements:**

Must criteria:

- Knowledge in Design for Production, production processes, and production optimization
- Understanding of the functionality of AI
- Programming skills in Python, MATLAB, or a comparable language
- Knowledge of SQL and Entity-Relationship models
- · Good knowledge of German and/or English required; willingness to acquire the respective missing language skills

#### Can criteria:

- · Basic knowledge and interest in Data Science
- · Practical programming experience with AI frameworks (e.g., PyTorch, TensorFlow)
- Advanced knowledge in quality management

## Party responsible for specialist area / point of contact for job posting: Eric Kempkens Period of employment: immediately until 10.12.2027

Apply to: eric.kempkens@tu-berlin.de

Please submit your written application including cover letter, your CV, certificate of enrollment, and where applicable, current transcript of records, with the reference number to the place of employment indicated above. In the interest of promoting equality opportunities for men and women, applications from women with suitable qualifications are particularly encouraged.

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

