



Technische Universität Berlin offers an open position:

### **Student assistant (40 hours per month)**

**Fakultät V: Verkehrs- und Maschinensysteme – Institut für Maschinenkonstruktion und Systemtechnik – Cyber-Physical Systems in Mechanical Engineering**

**Reference number:** V-SB-0062-2025 (starting at the earliest possible / immediately for 3 years / closing date for applications 10/07/25)

#### **Working field:**

Support in the DFG-funded project “Synergetic Analysis for Understanding Brake Particulate Emissions Through Multidisciplinary Approaches: AI Modelling, Numerical Simulation, and Experimental Validation - SLOPE”:

- Support with the implementation of deep learning models on HPC infrastructures (30%)
- Support with the implementation of data and deep learning pipelines for big data (30%)
- Support with the realisation of hyperparameter studies (30%)
- Documentation of data structures, Python code and AI training runs (10%)

#### **Requirements:**

**Must:**

- Proven very good programming skills in OOP, Python as well as profound knowledge of the libraries PyTorch, NumPy, Jupyter-Notebook, Matplotlib\*
- Experience in data processing and visualisation\*
- Very good written and spoken English skills
- \* Proof of expertise through a public GitHub repository, shared Jupyter notebooks or other relevant code samples or references

**Can:**

- In-depth knowledge of recurrent networks and handling sequential data
- Experience in working with Git, batch scripting and Linux environments
- Experience in test-driven development, e.g. with the unit testing framework unittest

**Party responsible for specialist area / point of contact for job posting:** Michal Brzosko, M.Sc.

**Period of employment:** immediately for 3 years

**Apply to:** [yamina.roost@tu-berlin.de](mailto:yamina.roost@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/>

