

The Physikalisch-Technische Bundesanstalt (PTB) is the national metrology institute of the Federal Republic of Germany with scientific and technical service tasks. It furthers progress and reliability in metrology for society, the economy and science.

With a starting date of 1 January 2023, Division 8 (Medical Physics and Metrological Information Technologies) is looking for a candidate to fill the following five-year position at our Berlin site:

### **Postdoctoral Researcher with a Background in Statistics, Mathematics, Bioinformatics or similar**

up to Remuneration Group 14 [TVöD Bund](#) ◦ full-time (39 hours/week) ◦ fixed-term contract

Within the scope of [TEF-Health AI and Robotics](#), an EU joint project that is part of the Digital Europe program, PTB will play a major role in advancing the quality assurance of machine learning and AI systems in medicine. You will be working in a new project team at the intersection of research and industry and will lay the foundation for the usage of trustworthy AI within the EU.

#### **Your tasks:**

- Statistically evaluating and analyzing training data sets used in ML/AI for medical devices, in particular ECG data and medical image data
- Compiling criteria and metrics for characterizing and evaluating data quality for ML/AI in medical devices (considering current state-of-the-art ML/AI research)
- Investigating the influence of data quality on the performance of ML/AI by considering synthetic data
- Investigating the influence of data quality on properties of ML/AI algorithms, such as uncertainty, robustness and generalizability
- Collaborating with research institutes, certified bodies and companies from all over Europe within the framework of the project partnership

#### **Your profile:**

- You have completed doctoral studies in statistics, mathematics, bioinformatics or a similar scientific field
- You have relevant experience with statistical methods and tools and with their application in Python
- Experience in working with ML/AI and a working knowledge of Linux are desirable
- Knowledge in the field of digital medicine would be an advantage
- You are a strong team player with excellent communication skills
- You are able to perform in an independent and goal-oriented manner
- You are creative and proactive.

- You have a good command of both spoken and written English.
- You are willing to travel within Germany and abroad within the scope of your assignment

**We offer:**

- A position at one of the world's leading research institutions with an excellent infrastructure-
- Outstanding national and international networking
- Remuneration in accordance with the Collective Bargaining Agreement for the Public Service covering federal employees (*Tarifvertrag öffentlicher Dienst Bund – TVöD*).
- Compatibility of family life and work (flexible work options and part-time schemes)
- Various workplace health and wellness options-
- 30 days paid annual leave
- Excellent public transportation connections and a subsidized transit pass (*VBB-Firmenticket*)
- Free parking for cars, motorbikes and bicycles

You will find further information related to this position at [Division 8](#) and by contacting: Mr. D. Schwabe, phone: +49 30 3481-7802, e-mail: [daniel.schwabe@ptb.de](mailto:daniel.schwabe@ptb.de) or Prof. Dr. T. Schäffter, phone: +49 30 3481-7343, e-mail: [tobias.schaeffter@ptb.de](mailto:tobias.schaeffter@ptb.de).

PTB promotes the professional equality of women and men and is thus especially interested in applications from women.

Disabled persons will be given priority if they have the same occupational aptitude.

Please use our online application form. Alternatively, you can send your application to the following postal address:

Physikalisch-Technische Bundesanstalt  
**Reference number 22-56-8**  
Abbestraße 2-12  
10587 Berlin  
Germany

Unfortunately, we cannot accept applications sent via email.

**Applications can be submitted from 30 September 2022 to 24 October 2022.**

