



TU Dortmund University is a dynamic research-oriented university with 17 departments in the natural and engineering sciences as well as social and cultural sciences. On our international campus, around 6,700 employees make a daily contribution to solving pressing questions of the present and the future. Openness and diversity characterize not only the collaboration in research and teaching, but also in technology and administration.

## Scientific employee in artificial intelligence in sport and sport sciences

The position is to be filled in the Faculty of Arts and Sport Sciences in the Institute of Sport and Sport Science and is to be filled as soon as possible for a period of 3 years. Remuneration is in accordance with the collective agreement regulations according to pay group E 13 TV-L. Employment on a part-time basis or reduction to part-time is possible in principle. The position is to be filled in aimed at obtaining a "Doctor" title within reasonable time.

At the Institute for Sport and Sport Sciences, we are pioneering work at the intersection of machine learning, health data science, wearable activity tracking, and the measurement of physical behaviors. You will join JProf. Dr. Vahid Farrahi's group (website: vahid.farrahi.science) to engage in both research and teaching within the field of data science and analytics. Our particular research focus is on uncovering the link between 24-hour activity, sedentary behavior, and sleep patterns using machine learning and data-driven approaches.

In addition to research, you will teach data science and machine learning to international students from diverse backgrounds, including sport and sport science, computer science, and health informatics. You are the perfect candidate if you enjoy research and evidence-based teaching and are willing to combine both in your everyday work.

### YOUR TASKS:

- Exploring the applications of data-driven and machine learning methods (including both deep learning and traditional approaches) for making sense of large-scale data obtained from wearable activity trackers.
- Contribute to teaching activities (2 SWS) for our English-taught MSc program in Sport Data Science. This will include the preparation of teaching content and materials.
- Writing research papers and your doctoral thesis
- Collaborating actively with other team members working in the same projects or on similar topics

### WE OFFER:

- The support of experienced and enthusiastic machine learning experts and sport scientists where you can share your expertise and grow as an expert.
- Team-oriented cooperation in a committed, international, and appreciative team.
- A modern equipped workplace in a new building expected to be completed in 2024 with fair and flexible working hours
- Cutting-edge facilities for human movement analysis including wearable devices and other modalities.

### YOUR QUALIFICATION:

- We are looking for an enthusiastic, self-motivated scientific employee with strong interests in data-driven health and wearable technologies.
- A recent MSc degree in artificial intelligence, biomedical engineering, data science, statistics, health sciences, information technology, computer sciences or other relevant fields with good grades. The degree must be completed prior to beginning the employment.
- Experience and background in signal processing, machine learning, and deep learning through research or course work
- Solid knowledge of programming in Python and R, especially for scientific computing.
- Desire and demonstrated ability to take part in teaching data science, machine learning, and artificial intelligence.
- Fluent written and oral English skills and good communication skills, as well as strong communication and teamwork skills are required.

### THE FOLLOWING IS VIEWED POSITIVELY:

- Experience in working with population-based studies.
- Experience in health wearables, particularly wearable activity monitors.
- Experience in scientific publishing
- Capability to do research or teaching independently

We promote diversity and equal opportunities. Convince us with your personality and expertise. Applications from woman will be given preferential treatment in accordance with the legal regulations.

Are you interested? Then please send us your application (cover letter, CV, previous degrees, transcript of records and contact information for two references) by 02.01.2025, quoting the reference number **w64-24** to:

**Technische Universität Dortmund**  
**Institut für Sport und Sportwissenschaft /Sekretariat**  
**Otto-Hahn-Straße 3**  
**44227 Dortmund**

For further questions please contact:

**JProf. Dr. Vahid Farrahi**  
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