



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 health data science and wearable health

*The position is to be filled in the Faculty of Arts and Sport Sciences in the Institute of Sport and Sport Science starting from March or April 2024 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 health, and human movement behavior analysis. You will join Tenure-track Assistant Professor Vahid Farrahi's group (website: <https://vahid.farrahi.science/>) to engage in both research and teaching within the field of data science and analytics, with a particular research focus on uncovering the health impacts of movement behavior profiles using machine learning and data-driven approaches.

Dr. Farrahi is a young investigator with strong expertise in machine learning and data-driven health, currently leading a talented team of researchers who are all dedicated to conducting multidisciplinary problem-oriented research with an emphasis on machine learning and data-driven solutions. In addition to his award-winning research, Dr. Farrahi's work has resulted in multiple data-driven discoveries (e.g.: <https://www.washingtonpost.com/wellness/2022/09/14/meet-active-couch-potato-how-sitting-all-day-can-erase-workout/>).

### YOUR TASKS:

- Exploring the applications of different machine learning methods or developing new methods (including both deep learning and traditional approaches) for making sense of large-scale data obtained from wearable devices or wearable activity monitors.
- Contribute to teaching activities for our English-taught MSc program in Sport Data Science
- 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 mid 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 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 and machine learning.
- 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 cohort or population-based studies.
- Experience in movement behavior analysis and working with wearable devices, 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.

***If you are interested to apply, please send us your application including 1) cover letter, 2) CV, 3) previous degrees, 4) transcript of records, and 5) contact information for two references by 15.3.2024 in a single PDF file, by email to Prof. Dr. Vahid Farrahi. Email: [Vahid.Farrahi@tu-dortmund.de](mailto:Vahid.Farrahi@tu-dortmund.de). Applications will be examined until the position is filled, and on a rolling basis.***