Job announcement

At the Leibniz Institute for Prevention Research and Epidemiology – BIPS we have an opening in the Department of Biometry and Data Management within the Research Group "Statistical Methods for Causal Inference" (Lead: Prof Dr Vanessa Didelez) for a

PhD student in Statistics (f/m/d)

Salary Scale 13 of the German public sector salary system (TV-L)

The position starts as soon as possible (administrative clearance permitting). The contract is initially limited to 3 years (extension possible), 39.2 hours/week (100% position). The position is generally suitable for part-time employment.

This position is 1 out of 9 PhD positions within the interdisciplinary DFG research group "Lifespan AI" on Computer Science, Mathematics, Health Science, Epidemiology and Statistics. Lifespan AI will use high-dimensional, life-spanning data that will be assembled from longitudinal epidemiological studies and supplemented with biological, social, and lifestyle information to model, predict and explain the development of diseases over the life course. Specifically, the candidate will work on integrating methods of statistics/ causal inference with methods of machine/ deep learning with applications in epidemiology.

We seek an excellent, open-minded and team-spirited PhD candidate. We are looking for a person with a background in (bio-) statistics, mathematics or related disciplines who is interested in longitudinal data analysis as well as statistical aspects of machine learning and applications in epidemiology.

Responsibilities:

- Combine methods of statistics (mixed-effects/ causal models) with methods of machine learning (random forests, neural networks) to predict individual-level health trajectories based on data of multiple cohort studies
- Harmonize and combine data of multiple cohort studies to generate a dataset covering the lifespan
- Publish and present research results
- Develop software packages

Requirements:

- Master's degree (or equivalent) in (bio-)statistics, mathematics, data science or related disciplines
- Advanced knowledge and proven track record in statistics, epidemiology and/or machine learning
- First experience with mixed-effects models, causal inference, random forests and/or neural networks is desirable
- Experience in publishing in international journals is desirable
- Programming skills in SAS, R, Python or similar
- Very good communication skills
- Very good knowledge of the English language
- Ability to work independently and as a member of a team
- Affinity for interdisciplinary work, motivation, commitment, and scientific curiosity

The Leibniz Institute for Prevention Research and Epidemiology – BIPS is one of the leading epidemiological research institutions in Germany and a member of the Leibniz Association. It maintains close collaborations with various partners in Germany and abroad. We offer a structured PhD program, exciting research topics, a stimulating international environment, a good infrastructure, close ties to the University of Bremen and an engaged, supportive and cooperative team.

Recognized severely disabled persons will be preferred if they are equally qualified. The Institute strives to promote its employees' work-life balance and has been certified for its family friendliness (audit "berufundfamilie"). We also offer additional support for international scholars to relocate to Germany through the Welcome Center of the UBremen Research Alliance.

Further information about the team and the Lifespan AI research group can be found at https://lifespanai.de/en/. Additional information about the institute can be found on our homepage: https://www.leibniz-bips.de/en.

Enquiries to: Dr. Claudia Börnhorst, phone: +49 421 218 56 946, email: boern@leibniz-bips.de

Please send your application in English or German with the usual documents quoting the reference number **A23/ 25** by **June 5, 2023** by e-mail as a single PDF file to:

bewerbung@leibniz-bips.de.