

Ann-Kathrin Schalkamp

12 Hayward Gardens, London, UK

+44 783 8338963

a.schalkamp@imperial.ac.uk

aschalkamp.github.io

aschalkamp

Curriculum Vitae

Improving patient outcomes and medical decision processes through data driven approaches.

First Author Nature Medicine Publication:

Developed a predictive model using smartwatch data to identify Parkinson's seven years before clinical diagnosis in the general population, outperforming existing markers.

Proficient with a diverse range of data:

Completed projects using data from genetics, biospecimen, brain imaging, digital sensors, clinical assessments, and EHRs.

Rapid Research Output:

Authored five first-author articles and contributed to three additional publications within three years.

Education

01/2021–01/2024 **Ph.D. *passed without corrections***, Cardiff University,

Biomarkers, Machine Learning, High Performance Computing.

- initiated projects on digital biomarkers leading to three publications
- created and compared risk prediction models based on biological, clinical, and digital data
- performed longitudinal data analysis with mixed models and assessed prognostic value
- conducted first quantitative comparison of data-driven Parkinson's disease subtypes

10/2018–11/2020 **M.Sc. Cognitive Science *first-class***, University of Tübingen,

Statistical and Probabilistic Machine Learning, Computational Psychiatry, Data Literacy.

10/2015–09/2018 **B.Sc. Cognitive Science *first-class***, University of Osnabrück,

Linear Algebra, Statistics, Algorithms and Data Structures, Neurobiology, Neuropsychology.

Experience

01/2024–06/2024 **Research Assistant**, Imperial College London: *Translational Machine Intelligence Lab.*
digital risk marker for Parkinson's disease, digital monitoring of non-motor symptoms

10/2019–04/2020 **Laboratory Internship**, University of Tübingen: *NeuroMADLAB.*

performed a mega-analysis of functional brain imaging data for depression classification.

03/2019–03/2020 **Research Assistant**, University of Tübingen: *Methods of Machine Learning.*

implemented a vectorised version of latent dirichlet allocation for topic modelling.

10/2016–04/2017 **Teaching Assistant**, University of Osnabrück: *Department of Computer Science.*

tutored the course Algorithms and Data Structures.

Achievements

- Awards
- runner-up for PGR student of the year 2023
 - best talk award at UKDRI PD ECR meeting 2023
 - runner-up for research proposal at UCL biomarker course 2022

- Engagement
- invited talk at Parkinson's awareness Day 2023
 - newspaper and radio interviews including BBC news
 - participated in Neurohack 2022 with a project on dementia diagnosis

Skills

Programming python (pandas, scikit-learn, pymc3, tensorflow), R (lme4, brms), Matlab (SPM)
Domain Knowledge Parkinson's, digital health technologies, clinical assessments