



Ann-Kathrin Schalkamp

Curriculum Vitae

Personal Details

Date of Birth 24.11.1996
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Education

01/2021 – 12/2023 **Bioinformatics Ph.D.**, Cardiff University.
10/2018 – 11/2020 **Cognitive Science M.Sc.**, University of Tübingen, final grade – 1.1.
10/2015 – 09/2018 **Cognitive Science B.Sc.**, University of Osnabrück, final grade – 1.5.
10/2017 – 02/2018 Semester abroad with Erasmus at KU Leuven, Belgium.
08/2007 – 06/2015 **Abitur**, Thomas-Morus-Gymnasium, Oelde, final grade – 1.0.

Master's Thesis

Title *Building a trajectory model of cognitive and motor aging: exploring predictors in large-scale, longitudinal data of elderly using machine learning techniques*
Supervisors Prof. Dr. Philipp Berens & Dr. Fabian Sinz
Description Multi-modal, longitudinal data of healthy elderly is analyzed to extract risk factors and model individual trajectories. Using Bayesian low-rank regression models to extract low dimensional representations of subjects from genetic, demographic, and lifestyle information to predict the time evolution of clinical test scores. Grade: 1.0

Bachelor's Thesis

Title *Analyzing event-related potentials in 8-channel EEG data using machine learning methods*
Supervisors Prof. Dr. Gordon Pipa & M.Sc. Olivera Stojanovic
Description Designing, implementing, conducting, and analyzing an EEG study to investigate whether EEG data acquired with the Traumschreiber, a portable high-tech sleep mask, is usable for traditional and single-trial analysis needed for Brain Computer Interfaces. Rethinking the relevance of reference placement to develop new ideas addressing the small sample size problem of BCIs. Grade: 1.0

Experience

- 10/2019–04/2020 **Laboratory Internship**, *University of Tübingen: NeuroMADLAB*.
Multi-site, large-scale mega-analysis of resting-state fMRI to explore robust and reliable functional connectivity biomarkers for Major Depressive Disorder using machine learning. Handling fMRI data, designing and performing the analysis.
- 03/2019–03/2020 **Research Assistant**, *University of Tübingen: Methods of Machine Learning*.
Preparing scripts for the courses Probabilistic Inference and Learning, and Data Literacy. Implementing a vectorized version of a Collapsed Gibbs Sampler for latent dirichlet allocation to be used for topic modelling.
- 10/2016–04/2017 **Teaching Assistant**, *University of Osnabrück: Department of Computer Science*.
Tutoring the course Algorithms and Data Structures. Weekly assessments of students' performance including discussion of exercise solutions and evaluating their general understanding of the course content. Grading assignments to determine exam admission, preparation and correction of the final exam.

Relevant skills

Programming Python, MATLAB
Data Handling fMRI, EEG, SNP, clinical tests
Other \LaTeX , Git

Languages

German native language
English fluent
French basic

Interests

Dance Classical Ballet (since 2004) and Modern Dance (since 2019)
CdE Schools Organizing and attending courses at CdE Schools (alumni organization of summer programs for academically motivated students in Germany: www.cde-ev.de/english) (since 2014)

References

Prof. Dr. Philipp Hennig Professor for the Methods of Machine Learning at University of Tübingen: philipp.hennig@uni-tuebingen.de
Dr. Fabian Sinz Group leader Neuronal Intelligence at University of Tübingen: fabian.sinz@uni-tuebingen.de