Ann-Kathrin Schalkamp

Curriculum Vitae

Personal Details

Date of Birth	24.11.1996
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Education

10/2018 – 11/2020	**Cognitive Science M.Sc.**, *University of Tübingen*, *current grade – 1.2*.
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	Investigating trajectories of cognitive and motor functioning in elderly, evaluating risk factors and predictors for pathological decline associated with neurodegenerative diseases using multi-modal, longitudinal data. 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.

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 investigating 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.

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.de
Dr. Fabian Sinz	Group leader Neuronal Intelligence at University of Tübingen: fabian.sinz@uni-tuebingen.de

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