

Arne Hansen

PHD STUDENT IN COGNITIVE NEUROSCIENCE

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Links **[GitHub](#) | [LinkedIn](#) | [UZH Website](#)**

PROFESSIONAL EXPERIENCE

- 04/2024 - present **DOCTORAL CANDIDATE**, Methods of Plasticity Research, Department of Psychology, UZH
Development of automated signal processing pipelines for neural and eye-tracking data
Building statistical and computational models
Development of open-science workflows to support transparent and reproducible analysis
Managing complex research projects
Collaboration within interdisciplinary research teams
Validation and quality control procedures for multivariate datasets
Presentation of research at international conferences
- 09/2023 - present **MANAGING DIRECTOR (20%)**, Competence Center Language&Medicine Zurich, UZH
Financial oversight in SAP
Organization of an international conference, colloquia, talks, and other events
Website content management in CMS Magnolia
- 07/2022 - 09/2023 **WEBSITE AND CONTENT MANAGEMENT ROLES (COMBINED)**, UZH
Website content management in CMS Magnolia across multiple units
Digitization of an internal wiki to centralise processes, guidelines, and key information
Design of onboarding workflows
- 02/2022 - 02/2024 **ADMINISTRATIVE ROLES (COMBINED)**, UZH
Conference and event organisation
General administrative support
Document preparation and maintenance of organisational records
- 01/2020 - 03/2024 **RESEARCH & TEACHING ROLES (COMBINED)**, UZH & ETH Zurich
EEG and eye-tracking data acquisition, preprocessing and analysis
Experimental design and data collection across cognitive neuroscience studies
Data analysis in R and MATLAB for behavioural and neurophysiological datasets
Development of study materials and research documentation
Creation of lecture slides, examination materials, and teaching resources

EDUCATION

- 04/2024 - present **PHD IN COGNITIVE NEUROSCIENCE**, Department of Psychology, UZH & Center for Neuroscience Zurich
Dissertation at the chair for Methods of Plasticity Research: «EEG Signatures of Oculomotor Control»
Jointly enrolled in the doctoral program in Psychology (UZH) and the International PhD Program in Neuroscience at the Center for Neuroscience Zurich (ZNZ; UZH & ETH)
- 02/2021 - 12/2023 **MSc IN PSYCHOLOGY**, Department of Psychology, UZH
Grade: 5.6 (summa cum laude)
Master's thesis (Methods of Plasticity Research): «On the Consistency of Co-Varying Eye Movements and Power Modulations of Alpha Oscillations during Working Memory Maintenance» [Grade: 6.0]
Focus on Neuropsychology and Cognitive Neuroscience
- 09/2017 - 12/2020 **BSc IN PSYCHOLOGY**, Department of Psychology, UZH
Bachelor's thesis (Neuropsychology): «Jenseits von Broca und Wernicke – Die aktuelle Perspektive zur Sprache im Gehirn» [Grade: 6.0]
Focus on Biopsychology and Neuropsychology

PUBLICATIONS

- 23.11.2024 **Hansen, A.D.**, Strzelczyk, D., Troendle, M., Langer, N. & Popov, T. (2024). **Modulations of posterior alpha power during working memory co-vary with task-dependent eye movement patterns.** *Psychophysiology* [Registered Report - Stage 1].
- in preparation **Hansen, A.D.**, Baer, L.Z.M., Troendle, M., Strzelczyk, D., Langer, N. & Popov, T. **Contrast-Induced Variability in Gamma Oscillations and Eye Movements.** [Registered Report - Stage 1]
- in preparation **Hansen, A.D.**, Appenzeller, N., Goetz, M., Popov, T., Strzelczyk, D. & Langer, N. **A Multiverse Analysis on the Validity of Frontal Alpha Asymmetry as a Biomarker for Depressive Disorder in Adolescents.**

ADVANCED TRAINING

- 08/2025 **Analyzing Neural Time Series Summer School**
- 10/2024 **Digital Signal Processing Workshop**
- 07/2023 **Advanced EEG Analysis in MATLAB**

LANGUAGES

Swiss German	Native
German	Native
Dutch	Native
English	Fluent
French	Basic

PROGRAMMING AND SOFTWARE SKILLS

MATLAB	Advanced preprocessing and automation of large-scale data workflows
Python	Data processing, workflow scripting for automated GLMM analysis and visualization
R	Statistical modeling
Git	Version control

GRANTS & AWARDS

- 12/2025 **GRC Travel Grant**, Graduate Campus of the Philosophical Faculty (GRC), UZH
- 08/2025 **Research Support Grant**, Graduate School of the Philosophical Faculty, UZH
- 05/2025 **PhD Poster Prize (2nd place) at MaDoKo 2025**, Psychological Institute, UZH
- 04/2025 **SNSF Mobility Grant**, Swiss National Science Foundation (SNSF)
- 03/2025 **Writing Retreat Grant**, Graduate School of the Philosophical Faculty, UZH
- 12/2024 **GRC Travel Grant**, Graduate Campus of the Philosophical Faculty (GRC), UZH

ENGAGEMENTS

- 09/2024 - present **Author**, Psychology student newspaper *aware*
 [^]Neuronale Uhren: Das Konzept des «Brain Age» in der Neurowissenschaft
 [^]Sehen verstehen: Wie unser Gehirn das Zusammenspiel von Augen und Wahrnehmung meistert
- 07/2022 - present **Lector**, Psychology student newspaper *aware*
- 05/2021 - 07/2023 **UZHGYM Buddy**, High school student mentoring program UZHGYM
- 09/2018 - 06/2019 **Mentor**, First year student mentoring program, Fachverein Psychologie UZH (FAPS)

INSTITUTIONAL ACTIVITIES

- 08/2024 - present **Elected Student Representative**, Commission for IT and Data Management, Dep. of Psychology, UZH
- 08/2024 - present **Elected Student Representative**, Institute's Assembly, Dep. of Psychology, UZH

INTERESTS

Mountain sports (hiking, skiing, via ferrata), endurance running, strength training, technology, geopolitics, and history.