DR. LENNART WITTKUHN

Research Data Scientist with a background in Cognitive Neuroscience

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ABOUT ME

Data Science & Data Engineering
5+ years experience in analysis, management & visualization of complex data, advanced statistics, computational modeling

DevOps & Computational Infrastructure
Proficient in version control, continuous integration & deployment (CI/CD), containerization, high-performance computing

Cognitive Neuroscience & Psychology
Comprehensive understanding of human brain, behavior & cognition, incl. decision-making, learning, memory processes

Machine Learning & Artificial Intelligence
Expertise in applying machine learning to brain imaging data, with foundations in neural networks & reinforcement learning

Research & Project Management
High-impact publications in top-tier scientific journals with ~100 citations, project management, funding acquisition

Speaking & Teaching
20+ presentations, talks & workshops with 1000+ attendees at international conferences & renowned research institutions

EXPERIENCE

Postdoctoral Research Scientist

University of Hamburg, Institute of Psychology
Max Planck Institute for Human Development, Berlin

 01/2022 – present   Hamburg & Berlin, Germany

- **Research:** Multivariate pattern analysis of brain imaging data, computational modeling & analysis of human behavior & cognition to investigate fast memory reactivation in humans
- **Skills:** Pattern classification, machine learning & data analysis in Python (e.g., scikit-learn, pandas, numpy), computational modeling, advanced statistics & data visualization in R, version-controlled code & data management using Git & DataLad, high performance computing (HPC), Docker, CI/CD on GitHub & GitLab
- **Teaching:** Full-semester course on "Version control of code and data using Git and DataLad" for MSc Psychology students
- **Lab Management:** Project Administration, Funding Acquisition, Supervision of Research Assistants, Project Documentation

Doctoral Researcher

Max Planck UCL Centre for Computational Psychiatry and Ageing Research, Max Planck Institute for Human Development

 10/2017 – 12/2021   Berlin, Germany

- **Dissertation:** "Investigating neural replay of task representations in the human brain using fMRI"

Previously: Research Assistant (Technical University Dresden), Research Intern (Concordia University Montreal & University College London), Clinical Intern (Charité University Hospital Berlin)

SKILLS

Languages

 Python, R, Bash, MATLAB

  e.g., **scikit-learn, pandas, numpy**

  e.g., **data.table, tidyverse, ggplot2**

 German (native), **English** (C1/C2)

Tools & Software

 Git, GitHub, GitLab, DataLad, git-annex

 GitHub Actions, GitLab CI, GNU Make

 Docker, Apptainer, Singularity

 HPC (Slurm, Torque)

 Amazon S3, Seafile, Nextcloud

 Jupyter Notebook, Quarto, RMarkdown

 MS Office, Markdown, LaTeX

EDUCATION

Ph.D. Cognitive Neuroscience

Max Planck UCL Centre for Computational Psychiatry and Ageing Research, Berlin & Free University of Berlin, Germany

 10/2017 – 12/2021   Grade: summa cum laude

M.Sc. Cognitive Neuroscience

Technical University Dresden, Germany

 10/2015 – 09/2017   Grade: 1.2 (very good)

B.Sc. Psychology

Technical University Dresden, Germany

 10/2012 – 09/2015   Grade: 1.3 (very good)

FELLOWSHIPS

Data Literacy Teaching Fellow

DDLitLab, University of Hamburg

 04/2023 – present   50,000 € funding

Member of research data management & open science working group

MPI for Human Development, Berlin

 10/2022 – present

Reproducible Neuroimaging Fellow

ReproNim & INCF Training Fellowship

 2020 – 2021