Simon R. Steinkamp

• • https://srsteinkamp.github.io/

Personal Profile

Independent, creative problem-solver, and a quick learner. I decided to leave academia after my doctorate studies, realizing that applying my analysis and critical thinking skills to real world problems will have a greater impact.

Experience

Doctoral Researcher
09/2016 – 09/2020

Cognitive Neuroscience, INM-3, Research Centre Jülich, Germany

Conducting and designing experiments on visual attention. Neuroimaging (fMRI) and behavioral data analysis, using mass-univariate and multivariate statistics, implementing machine learning and non-linear steady state models (DCM). Presenting and publishing the studies' results at academic conferences and in scientific journals.

Student Research Assistant
11/2013 – 09/2016

Biological Psychology Laboratory, University of Oldenburg

Internship
10/2015 – 11/2015

Computational Audition, Medical Physics department, University of Oldenburg

Internship
02/2015 – 04/2015

Psychophysics Laboratory, National Magnetic Resonance Research Center, Ankara, Turkey

Education

PhD student, Psychology
10/2016 – 4/2021 (expected)

University of Cologne, Germany

Dissertation "Visual Attention along the Visual Field's Meridians - Computational Modeling of Neural and Behavioral Dynamics" (submitted)

Neurocognitive Psychology, M.Sc.
10/2013 – 10/2016

University of Oldenburg, Germany

Thesis "Relating graph-based measures of network topology to fluctuations in selective auditory attention: A concurrent EEG / fMRI study."

Psychology, B.Sc.
09/2010 – 09/2013

University of Groningen, Netherlands

Thesis "Social influence on visual perception: A question of top-down processing or trust in information?"

Bilkent University, Ankara, Turkey
09/2012 – 01/2013

Exchange semester (Erasmus Mundo)

Courses

Reinforcement Learning – University of Alberta, Coursera, 2020 • Computational Psychiatry – Translational Neuromodeling Unit, Zurich, 2019 • Deep Learning Specialization – deeplearning.ai, Coursera, 2018

Skills

Technical

Python ●●◐ Matlab ●●◐ R ●◐○ SQL ◐○○

Statistics and Data Visualization Presenting experimental results and diagnosing predictive models. Extensive knowledge in **statistical and predictive modeling** in **R** and **Python** and data-visualization **seaborn, matplotlib, nilearn, networkx** in **Python**

Machine Learning Experienced in working with time-series, imaging, and tabular data, through studies and challenges (Kaggle Expert). Utilizing Python libraries like **pandas, scikit-learn, tensorflow, keras, pytorch**.

Open source development Author of pymtrf (a Python toolbox for multivariate temporal response functions), contributions to nilearn, datalad-osf. Confident in **version control (git), unit-testing**, **continuous integration**, and **docker**.

Neuroimaging Analyzing fMRI data using SPM & nistats/nilearn for brain-mapping, fmriprep & mriqc for preprocessing and quality assessment, Variational Bayesian Analysis toolbox & SPM-DCM for effective connectivity, Brain Connectivity Toolbox for graph analysis, freesurfer for retinotopy, and EEGLAB & MNE for EEG analysis.

Non-Technical

German ●●● English ●●● Spanish ●○○ Dutch ◐○○

Presenting & Writing Presenting complex research questions and analyses in front of interdisciplinary audiences. Published in scientific journals.

Team-Work & Mentoring Discussing projects, advising and consulting with colleagues on research methods and statistics. Working in very diverse teams. Engagement in student bodies during studies, youth-team leader in high-school.

International Experience Studied and worked in different countries, having experience with teams coming from very different backgrounds and cultures.

Personal Interests

I am a constant learner and reader. For example, I am genuinely excited about programming, so that I just started learning Julia. Apart from that, I like running, aiming to compete in a half-marathon in the near future. Additionally, I love martial arts, pair-dancing, and am fascinated by the intricacies of poker.

References

I am happy to provide names and contacts for my references upon request.

Publications

- **Steinkamp, S. R.**, Weidner, R., Fink, G. R., & Vossel, S. (**2020**). Simultaneous Modeling of Reaction Times and Brain Dynamics in a Spatial Cuing Task, **bioRxiv** 2020.11.16.384198; https://doi.org/10.1101/2020.11.16.384198
- **Steinkamp, S. R.**, Vossel, S., Fink, G. R., & Weidner, R. (**2020**). Attentional reorientation along the meridians of the visual field: Are there different neural mechanisms at play? **Human Brain Mapping**, 25086. https://doi.org/10.1002/hbm.25086
- Botvinik-Nezer, R., Holzmeister, F., Camerer, C. F., Dreber, A., Huber, J., Johannesson, M., …**Steinkamp, S. R.** …Schonberg, T. (**2020**). Variability in the analysis of a single neuroimaging dataset by many teams. **Nature**. https://doi.org/10.1038/s41586-020-2314-9
- Puschmann, S., **Steinkamp, S.**, Gillich, I., Mirkovic, B., Debener, S., & Thiel, C. M. (**2017**). The Right Temporoparietal Junction Supports Speech Tracking During Selective Listening: Evidence from Concurrent EEG-fMRI. **The Journal of Neuroscience**, 37(47), 11505. https://doi.org/10.1523/JNEUROSCI.1007-17.2017