Max Schulz

PhD Candidate

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Research Interests

- Dynamics of distractor processing in auditory selective attention
- Electroencephalography (EEG)
- Advanced movement analyses in neuroscientific paradigms, e.g., video-based eye- and cursor-tracking
- Auditory scene analysis using convolutional neural networks

Education

Doctor rerum naturalium (Dr. rer. nat.) | 2024 - Present
Universität zu Lübeck, Lübeck, Germany

- **Major:** Psychology
- **Dissertation/Thesis Title:** "Understanding capture and suppression in auditory attention"
- **Advisor:** PD Dr. rer. nat. habil. Malte Wöstmann

Master of Science (M.Sc.) | 2020 - 2024
Universität zu Leipzig, Leipzig, Germany

- **Major:** Biology with specialization in neuro- and behavioral sciences
- **Thesis Title (if applicable):** "AI-Supported Evidence For Spectrotemporal Primacy In Auditory Numerosity Judgment"

Bachelor of Science (B.Sc.) | 2017 - 2020
Universität zu Leipzig, Leipzig, Germany

- **Major:** Biology
- Focus on Neurobiology

Research Experience

Research Assistant | 2021 – 2024
Department of Psychology, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

- **PI:** Christian Döller
- **Focus:** Learning and representation of hierarchical concepts in hippocampus and prefrontal cortex
- Study conduction and data conduction of fMRI, Eye-tracking, and Virtual-reality

experiments

Tutor | 2023
Department of Neurobiology, University Leipzig, Germany

- **PI:** Marc Schönwiesner
- **Focus:** Preparation, conduction and analysis of psychoacoustic electroencephalogram experiments with Python

Intern | 2023
Department of Neurobiology, University Leipzig, Germany

- **PI:** Marc Schönwiesner
- **Focus:**
    - Development of a custom analysis tool which enables EEG-analysis in MNE-Python
    - Development of a custom high-level platform which enables Python-based interaction of Tucker-Davis-Technologies hardware within an acoustic free-field laboratory

Publications

- **Journal Articles:**
    - **Schulz** & Wöstmann. 2024. Spatial Attention: Time to get deep. *eLife*, DOI: 10.7554/eLife.100755

Presentations

- **Poster Presentations:**
    - *Separating Target Enhancement from Distractor Suppression During Auditory Search*. Poster presented at Psychologie und Gehirn 2025, Würzburg, Germany.
    - *How do enhancement and suppression shape selective attention?* Poster presented at Salzburg Mind Brain Annual Meeting 2024, Salzburg, Austria.

Technical Skills

- **Programming Languages:** Python, R, Unity
- **Software & Tools:** Jamovi, LaTeX, Git, Adobe Illustrator
- **Laboratory Techniques:** EEG