

ULRIKE HORN

Data scientist & researcher



With an M.Sc. in Biomathematics and a PhD in Medical Neuroscience, I bring over a decade of experience in data processing, analysis, and scientific research. I value clarity in communication, focused and detail-oriented work, and empathetic collaboration. I'm driven by the challenge of turning complex problems into structured, accessible insights that support people and projects in a meaningful way.

+49 176 98765250
ulrike.horn90@gmail.com
ulrikehorn.github.io
Leipzig, Germany

CAREER

Postdoctoral research fellow 2018 – Present

Max Planck Institute for Human Cognitive and Neuroscience
Leipzig, Germany

- Independent research group pain perception (PI Dr Falk Eippert)
- Projects about predictive coding, expectation effects, spinal encoding, and modulation of pain perception
- Techniques: (spinal cord) fMRI at 3T and 7T, eye tracking, skin conductance recordings, EEG, ECG, EMG

Doctoral researcher 2015 – 2018

University Medicine Greifswald, Germany

- Baltic Imaging Center (PI Prof Martin Lotze)
- Thesis title: Imaging in predictive and observational studies of motor function restitution after stroke
- Federal state scholarship for doctoral studies for 2.5 years
- Techniques: fMRI at 3T, Dynamic causal modelling

TEACHING & SUPERVISION

- Seminar General Psychology II – Memory and Learning (3 units) for B. Sc. Psychology at University Leipzig (2020 – 2021)
- Supervision of master students at Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig (2020 – 2021; 2025)
- Supervision of medical graduate students at University Medicine Greifswald (2016 – 2018)
- Tutorials in mathematics for natural scientists at University Greifswald (2012 – 2014)

SKILLS

Technical skills

Python/Pandas/Seaborn
Matlab
R/Markdown
MySQL/PowerBI
fMRI processing FSL/SPM
Statistical analysis
Machine learning

Professional strengths

Problem-solving
Structured mindset
Approachable

EDUCATION

PhD Medical Neuroscience
University Medicine
Greifswald
2015 – 2019

M.Sc. Biomathematics
University Greifswald
2011 – 2015

B.Sc. Biomathematics
University Greifswald
2008 – 2011

SELECTED PUBLICATIONS

Zhao, H., **Horn, U.**, Freund, M., Bujanow, A., Grundlach, C., Hartwigsen, G., Eippert, F. (2026). Assessing adverse effects and unspecific effects of transcutaneous spinal direct current stimulation (tsDCS). *Imaging Neuroscience*, 4: IMAG.a.1292.

Horn, U., Vannesjo, S. J., Gross-Weege, N., Trampel, R., Revina, Y., Kaptan, M., ... Others. (2025). Ultra-high-field fMRI reveals layer-specific responses in the human spinal cord. *bioRxiv*, 2025–2007.

Pohle, L.-M. G., Nickel, M. M., Nierula, B., Ploner, M., **Horn, U.**, & Eippert, F. (2025). Expectation effects on repetition suppression in nociception. *Journal of Neurophysiology*, 134(4), 1244–1256.

Saulin, A., **Horn, U.**, Lotze, M., Kaiser, J., & Hein, G. (2022). The neural computation of human prosocial choices in complex motivational states. *NeuroImage*, 247, 118827.

Horn, U., Roschka, S., Eyme, K., Walz, A.-D., Platz, T., & Lotze, M. (2016). Increased ventral premotor cortex recruitment after arm training in an fMRI study with subacute stroke patients. *Behavioural Brain Research*, 308, 152–159.

Horn, U., Grothe, M., & Lotze, M. (2016). MRI biomarkers for hand-motor outcome prediction and therapy monitoring following stroke. *Neural Plasticity*, 2016(1), 9265621.

CERTIFICATES

Certified Associate Python Programmer

Python Institute (2026)

Microsoft Power BI Data Analyst Professional Certificate

Coursera (2026)

LANGUAGES

German (native)

English (fluent)

Spanish (intermediate)