

# Zsuzsanna Nemecz

## Address

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Germany

## Contact

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## Find me here

Website  
GitHub  
X (Twitter)

## Language skills

English (advanced)  
German (upper intermediate)  
Hungarian (native speaker)

## Programming languages

Python, R, C,  
shell scripting, Matlab

## Technical skills

FSL, FreeSurfer, ASHS, ANTS  
MNE Python

## Strengths

Endless curiosity  
Quick learner  
Good collaborator  
Ability to work independently

## Education

- 2019–Ongoing **PhD in Cognitive Psychology**  
Eötvös Loránd University, Budapest  
Supervisor: Dr. Attila Keresztes
- 2017 **Embedded Software Developer**  
Green Fox Academy, Budapest
- 2013–2016 **Mind and Brain M.Sc.**  
Humboldt-Universität zu Berlin
- 2009–2013 **Psychology B.A.**  
Eötvös Loránd University, Budapest

## Conference Presentations

- 2024 **Mind Brain Body Symposium - MBB** Berlin, Germany  
*Short Talk*  
Resolving memory interference between non-meaningful stimuli depends on the parahippocampal and perirhinal cortex, not the hippocampus
- 2023 **Cognitive Neuroscience Society - CNS** San Francisco, United States  
*Poster presentation*  
Longitudinal Investigation of Medial Temporal Lobe Pathways And Mnemonic Discrimination in Aging
- 2022 **Federation of European Neuroscience Societies - FENS** Paris, France  
*Poster presentation*  
Discriminating Memories of Items and Spatial Locations:  
Is there Content-Specific Mnemonic Specialization in the Human Medial Temporal Lobe?
- 2021 **Cognitive Neuroscience Society - CNS** Online  
*Poster presentation*  
A strong test of content-specific pattern separation via distinct medial temporal pathways

## Publications

Bencze, D., Marián, M., Szöllősi, Á., Pajkossy, P., **Nemecz, Z.**, Keresztes, K., Hermann, P., Vidnyánszky, Z., & Racsmány, M. (2024). Contribution of the lateral occipital and parahippocampal cortices to pattern separation of objects and contexts. Manuscript submitted for publication.

Keresztes, A., Bankó, É., Báthori, N., Tomacsek, V., Varga, V. A., Nárai, Á., **Nemecz, Z.**, Dénes, Á., Gál, V., Hermann, P., Simor, P., & Vidnyánszky, Z. (2023). Multi-night EEG reveals positive association between sleep efficiency and hippocampal subfield volumes in healthy aging. bioRxiv. <https://doi.org/10.1101/2023.11.05.565729>

Nárai, Á.\*, **Nemecz, Z.\***, Vidnyánszky, Z., & Weiss, B. (2022). Lateralization of orthographic processing in fixed-gaze and natural reading conditions. Cortex, 157, 99–116.  
<https://doi.org/10.1016/j.cortex.2022.07.017>

\*Equal contributions.

## Scholarships and Grants

2023–2024	<b>One-year Research Grant for Graduate Students</b> German Academic Exchange Service - DAAD
2022–2023	<b>ÚNKP-22-3 New National Excellence Program</b> Hungarian Ministry for Culture and Innovation
2022, 2023	<b>Travel Grant for Conference Attendance</b> Talent Support Council, Eötvös Loránd University
2021	<b>"Doctoral Projects" Research Consortium</b> <small>Jointly with fellow PhD student Alex Ilyés</small> Faculty of Psychology, Eötvös Loránd University
2019–2023	<b>Hungarian State Scholarship for Doctoral Students</b> Hungarian Scholarship Board Office

## Research Experience

2019–Current	<b>Brain Imaging Center</b> <b>Research Centre for Natural Sciences, Budapest</b> <i>PhD Student</i> Longitudinal, high-resolution MRI study on aging and memory Supervisor: Dr. Attila Keresztes Topic: Hippocampal subfields and pattern separation in healthy aging
2019	<b>Brain Imaging Center</b> <b>Research Centre for Natural Sciences, Budapest</b> <i>Junior Member</i> Carrying out EEG experiments and assisting with data analysis Supervisor: Dr. Béla Weiss Topic: Neural correlates of reading
2016	<b>Center for Lifespan Psychology</b> <b>Max Planck Institute for Human Development, Berlin</b> <i>Student Research Assistant</i> Creating head models for EEG source localization with Matlab Supervisors: Dr. Markus Werkle-Bergner and Dr. Myriam Sander Project: Cognitive and Neural Dynamics of Memory Across the Lifespan
2015–2016	<b>Cognition in Neurological Disorders Group</b> <b>Berlin School of Mind and Brain</b> <i>Student Research Assistant</i> Analysis of structural and functional MRI data. Supervisor: Dr. Carsten Finke Topic: Functional connectivity and cognition in early Multiple Sclerosis
2015–2016	<b>Potsdam Embodied Cognition Group</b> <b>University of Potsdam</b> <i>Student Research Assistant</i> Organizing and running experiments using EEG and TMS Supervisor: Dr. Claudia Gianelli Topic: Embodied processing of language

## Teaching Experience

2020–	<b>Supervision of Theses and Course Projects</b> <small>Jointly with Attila Keresztes</small> Psychology Bachelor and Masters Program, Eötvös Loránd University
2020–2021	<b>Introduction to Brain Imaging - Seminar</b> <small>Jointly with Attila Keresztes</small> Psychology and Computational Cognitive Neuroscience Master Program, Eötvös Loránd University
2019–2022	<b>Experimental Methods in Psychology - Seminar</b> Psychology Bachelor Program, Eötvös Loránd University

## Professional Activities

- 2023 **Peer-review for the journal Hippocampus**  
With the supervision of Dr. Attila Keresztes
- 2021–2022 **ELTE Cognitive Seminar** With Réka Schajda and Dr. Ildikó Király  
*Organizer*  
Academic talks in the topic of cognitive neuroscience open to the public

## Master Thesis

### **Functional Brain Networks In Clinically Isolated Syndrome**

Supervisors: Dr. Carsten Finke, Dr. Arno Villringer

## Summer Courses

- 2020 **Neuromatch Academy**  
Summer school in computational neuroscience
- 2021 **Neurohackademy**  
Summer school in neuroimaging and data science

## Other Work Experience

- 2017–2018 **Model Based Function Developer**  
**Robert Bosch Kft, Budapest**  
Software development for automotive steering systems
- 2013–2014 **Hungarian Store Maintainer**  
**'txtr eBooks, Berlin**  
Writing newsletters, managing and updating the eBook webstore, and communicating with publishers and business partners