



Daniil Vlasenko

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Education

HSE University, Institute for Cognitive Neurosciences
PhD, Doctoral School of Cognitive Science
Moscow, Russia, November 2025 – present

HSE University, Institute for Cognitive Neurosciences
MS, Cognitive Sciences and Technologies
Moscow, Russia, September 2023 – June 2025

Saint Petersburg State University (SPbU), Department of Mathematics and Mechanics
BS, Applied Mathematics and Computer Science
St. Petersburg, Russia, September 2019 – June 2023

Additional education

Neuromatch Academy, NeuroAI course
Online, 14 - 25 July 2025

Neuromatch Academy, Computational Neuroscience course
Online, 8 - 26 July 2024

Mediterranean School of Complex Networks
Grado, Italy, 30 June - 5 July 2024

Bioinformatics Institute (BI), Professional retraining program "Algorithmic Bioinformatics"
St. Petersburg, Russia, September 2022 – January 2023

Selected Publications

(Q1 Scientific Journal) Krivonosov, M., Nazarenko, T., Ushakov, V., Vlasenko, D., Zakharov, D., Chen, S., Blyus, O., & Zaikin, A. (2025). Analysis of Multidimensional Clinical and Physiological Data with Synolitical Graph Neural Networks. *Technologies*, 13(1), 13.

Vlasenko D., Saranskaia I., Zakharov D., "From Pairwise to High-Order: Hypergraph Methods and Multivariate Connectivity Metrics for EEG/MEG," 2025 7th CNN, Nizhny Novgorod, Russian Federation, 2025, pp. 142-145.

Additional publications can be found on my [Google Scholar page](#).

Selected Conferences

Volga Neuroscience Meeting 2025, The 7th International Conference "Neurotechnologies and Neurointerfaces", topic "From Pairwise to High-Order: Hypergraph Methods and Multivariate Connectivity Metrics for EEG/MEG" (poster presentation)
Nizhny Novgorod, Russia, 25 - 29 August 2025

International School and Conference on Network Science: **NetSci 2025**, topic "Ensemble-Based Graph Representation of fMRI Data for Cognitive Brain State Classification" (poster presentation)
Maastricht, the Netherlands, 2-6 June 2025

Baltic Forum 2024: Neuroscience, Artificial Intelligence and Complex Systems, VIII Scientific School "Dynamics of Complex Networks and their Applications", topic "*Ensemble methods for representation of fMRI, EEG/MEG data in graph form for classification of brain states*" (poster presentation).
Kaliningrad, Russia, 19–21 September 2024

Scholarships and fellowships

Combined Master's-PhD track at HSE University, the talent program designed for graduate students enrolled on full-tuition scholarships.
September 2023 – present

Academic Development Program (New Scientist category) at HSE University, the talent management program aimed at supporting the professional development of promising teachers and researchers.
January 2024 - May 2025

Honors and Awards

Winner (1st Place), Information Technology & Mathematics Section, 10th All-Russian Youth Scientific Forum "Science of the Future – Science of the Youth".
September 2025.

Certificate of Excellence "Best Diploma of the Year 2025", HSE University Institute for Cognitive Neuroscience.
June 2025

(Selected) Research experience

Russian Science Foundation Interdisciplinary Grant 24-68-00030 "Next Generation Cognitive Artificial Intelligence"

Research-assistant
June 2024 - present

My tasks: development of representation methods of fMRI, EEG/MEG data in graph form and application of graph neural networks for a classification task of brain states.

Technologies: python, scikit-learn, pytorch geometric, igraph, nilearn, mne, scipy, numpy, pandas; R, dplyr, tidyr, ggplot2.

HSE University, Institute for Cognitive Neurosciences, Strategic Project "Human Brain Resilience", subproject "AI-based listening diagnostic systems"

Research-assistant
September 2023 – December 2024

My tasks: development of neuromorphic dynamic models of speech information processing based on cross-frequency interaction of macroscopic brain rhythms.

Technologies: python, numpy, pandas, matplotlib, scipy, jax, imit_utils, syllabify, brian2, brian2hears.

Teaching experience

Supervision of course and diploma works of undergraduate students, **HSE University**
September 2024 – present

Languages

Russian (native), English (B2)

Skills

Programming

Python – NumPy, Pandas, Matplotlib, SciPy, scikit-learn, PyTorch, PyTorch Geometric, igraph, nilearn, mne; R – dplyr, tidyr, ggplot2, igraph; C++; MySQL; algorithms and data structures; Linux-based operating systems; familiar with remote server operation (terminal, Bash), version control systems (git, GitHub), HTML, CSS, JavaScript and Selenium; preparing documents and presentation slides using LaTeX.

Data analysis and machine learning

Classical data analysis; analysis of categorical data; network analysis; machine learning including deep learning; databases (SQL queries). Analysis and preprocessing of fMRI, EEG/MEG data; analysis of neural electrode data (neuropixels probes).

Mathematics

Statistics; probability theory; graph theory; algebra; mathematical analysis; analytic geometry; computational mathematics; optimization methods.