

MAKSIM ZHDANOV | Curriculum Vitae

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RESEARCH INTERESTS

- Group Equivariant Deep Learning
- Molecular Biology & ML
- Generative Modeling
- Physics & ML

EXPERIENCE

RESEARCH ASSISTANT

Helmholtz AI @ Helmholtz-Zentrum Dresden-Rossendorf

04/2022 - ongoing

STUDENT ASSISTANT

Helmholtz AI @ Helmholtz-Zentrum Dresden-Rossendorf

09/2020 - 03/2022

STUDENT ASSISTANT

The Institute for Medical Informatics and Biometry

05/2020 - 12/2020

EDUCATION

TU DRESDEN

M.Sc. in Computer Science, GPA: 1.4

10/2019 - 3/2022

Dresden, Germany

SAINT PETERSBURG STATE UNIVERSITY

B.Sc. in Biophysics, GPA: 1.2, with honours

9/2015 - 7/2019

Saint Petersburg, Russia

PUBLICATIONS

- Zhdanov, M., Steinmann, S., & Hoffmann, N. (2022). [Investigating Brain Connectivity with Graph Neural Networks and GNNExplainer](#), accepted to ICPR 2022
- Zhdanov, M., Steinmann, S., & Hoffmann, N. (2022). [Learning Generative Factors of Neuroimaging Data with Variational auto-encoders](#), in review for IMLH @ ICML 2022
- Stiller, P., Zhdanov, M., Rustamov, J., Bethke, F., & Hoffmann, N. (2021). [Neural Solvers \(Version 0.1\)](#). Rodare. <http://doi.org/10.14278/rodare.1194>

SELECTED PROJECTS

- Solving inverse scattering problems with diffusion models (in progress)
- Representation learning for functional connectivity analysis
- Investigating brain connectivity with graph neural networks
- Learning PDE from thermoimaging data with PINNs

SKILLS

PROGRAMMING LANGUAGE FRAMEWORKS & TOOLS LIBRARIES LANGUAGES

Python | C++ | R

Git | GROMACS | AutoDock Vina

PyTorch | NumPy | PyTorch Geometric | OpenCV | Pandas

Native: Russian | Fluent: English | Intermediate: German

EXTRACURRICULAR ACTIVITIES

HZDR MACHINE LEARNING JOURNAL CLUB

active participant

09/2020 - ongoing

Dresden, Germany

HELMHOLTZ AI CONFERENCE

poster presentation

06/2022

Dresden, Germany

INTERNATIONAL AI ARCHEOLOGY CHALLENGE

3rd place

04/2022

online, Israel

5. WORKSHOP BIOINFORMATICS MEETS MACHINE LEARNING

Talk: "Investigating Brain Connectivity with Graph Neural Networks and GNNExplainer"

12/2021

online, Germany

MACHINE LEARNING SUMMER SCHOOL

participant

08/2021

online, Taiwan

CASUS WORKSHOP

Talk: "Investigating Brain Connectivity with Graph Neural Networks and GNNExplainer"

09/2021

Gorlitz, Germany

HIDA COVID-DATA CHALLENGE

participant

04/2021

online, Germany