

# Dmitrii Altukhov

PYTHON ENGINEER · PHD (COMPUTER SCIENCE)

Amsterdam, The Netherlands

publications (Scopus) |  dMalt |  dmitrii-altukhov-258b05233 |  altukhov.dm@gmail.com |  +316 136 36 770

## Profile

For the past 8 years, I've been occupied in neuroimaging research. My projects involved software development, data engineering, and data science as well as technical writing and presentation. I'm a lifelong learner striving for novelty and passionate about AI, code quality and design.

## Skills

Python, Numpy, PyTorch, Numba, SQL, Docker, Linux

## Experience

### SBDA Group

DATA SCIENTIST, CONTRACT

Astana, Kazakhstan (remote)

Sep. 2023 – Oct. 2023

- Developed and implemented a tool for optimizing manufacturing schedule in **Python**

### Artificial Intelligence Research Institute (AIRI)

RESEARCH FELLOW

Moscow, Russia

Feb. 2022 – Apr. 2023

- Built deep learning model for decoding speech from MEG data in **PyTorch**, [meg\\_speech\\_decoding on github](#)
- Developed real-time pipeline for EEG timeseries analysis using **Python**

### Higher School of Economics, Centre for Cognition and Decision Making

RESEARCH FELLOW, PYTHON SOFTWARE DEVELOPER

Moscow, Russia

Feb. 2017 – Dec. 2021

- Led 4-people group developing software for real-time ML and 3D visualization of brain activity from EEG using **Python + Numba JIT**
- Created a pipeline for MEG data preprocessing, see [metacognition](#), [MRI\\_metacognition](#) on github

### University of Montreal, CERNEC lab., and Moscow MEG Center

VISITING RESEARCHER, TEMPORARY POSITION

Montreal, Canada, Moscow, Russia

Feb 2015 – Dec 2018

- Built a classifier for ASD patients vs. Controls with 75% accuracy using classical ML and information geometry in **Python**
- Co-developed an open-source **Python** package for heavy neuroimaging data processing, [Neuropycon](#)
- Published four papers in collaboration with the University of Montreal

### Scientific Research Institute of System Analysis

RESEARCH ASSISTANT, PROMOTED TO JUNIOR RESEARCH FELLOW

Moscow, Russia

Jun. 2011 – Jan. 2015

- Tested software for simulations of flow in jet engines; implemented a droplet evaporation model in **C++**

## Education

### Ph.D. in Computer Science

HIGHER SCHOOL OF ECONOMICS, FACULTY OF COMPUTER SCIENCE

Moscow, Russia

Jan. 2016 – Nov. 2021

- Thesis: "Optimal methods for functional connectivity estimation in magnetoencephalography."; GPA: 4.0
- Published a paper in a leading neuroscientific journal (see [Ossadtchi et al. \[2018\]](#)) by proposing an algorithm for brain signals analysis.

### Specialist degree in Mechanics (Masters equivalent)

LOMONOSOV MOSCOW STATE UNIVERSITY, DEPARTMENT OF MECHANICS AND MATHEMATICS

Moscow, Russia

Sep. 2008 – Jun. 2013

- Thesis: "Enhancement and validation of LOGOS software for simulations of the reactive fluid flows."

## Honors & Awards

- Selected for 2-year *HSE Academic Scholarship* for a high-impact publication Moscow, Russia  
2019
- Selected 1-st out of 5 teams *IEEE Brain Data Bank Challenge* for building a BCI drinking game St. Petersburg, Russia  
2017