Dmitrii **Altukhov**

DATA SCIENTIST · PHD (COMPUTER SCIENCE)

Amsterdam, The Netherlands

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Profile

I specialize in software engineering and data science with 8-years experience building data analysis algorithms. I'm passionate about programming while having a strong background in applied mathematics.

Skills

Python, Java, C/C++, MATLAB, Git, machine learning, statistics, optimization

Experience

SBDA Group *Astana, Kazakhstan (remote)*
DATA SCIENTIST, CONTRACT *Sep. 2023 – Oct. 2023*
- Developed and implemented a tool for optimizing manufacturing schedule in **Python**

Artificial Intelligence Research Institute (AIRI) *Moscow, Russia*
RESEARCH FELLOW *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 *Moscow, Russia*
RESEARCH FELLOW, PYTHON SOFTWARE DEVELOPER *Feb. 2017 – Dec. 2021*
- Led 4-people group developing software for real-time feature extraction and 3D visualization of brain activity from EEG in **Python**
- Created a pipeline for MEG data preprocessing, see metacognition, MRI_metacognition on github

University of Montreal, CERNEC lab., and Moscow MEG Center *Montreal, Canada, Moscow, Russia*
VISITING RESEARCHER, TEMPORARY POSITION *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 *Moscow, Russia*
RESEARCH ASSISTANT, PROMOTED TO JUNIOR RESEARCH FELLOW *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 *Moscow, Russia*
HIGHER SCHOOL OF ECONOMICS, FACULTY OF COMPUTER SCIENCE *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)* *Moscow, Russia*
LOMONOSOV MOSCOW STATE UNIVERSITY, DEPARTMENT OF MECHANICS AND MATHEMATICS *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