



Mikołaj Buchwald

DATA SCIENCE
FULL-STACK DEVELOPMENT

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Personal Bio

I am a researcher and developer. My area of expertise is quantitative analysis of human cognition. For that purpose I develop algorithms and web-based systems.

Specialization

- Biomedical data: functional magnetic resonance imaging (fMRI), electroencephalography (EEG), and galvanic skin response (GSR/EDA)
- Technologies: Python, Django, R, Java, Spring, Git, JIRA, Confluence, OpenStack

Work Summary

Data science & web development

Poznań Supercomputing and Networking Center

June 2018 - present

- Psychophysiological models for scientific and commercial projects
- Biomedical data analysis for application scenarios
- Participating in R&D Horizon European Commission projects

Graphic design

ProMedia Sp. z o.o.

November 2011 - August 2012

- Preparing marketing materials and logotypes for printing
- Corel and Adobe graphics suites

Education

Adam Mickiewicz University in Poznań

PhD in Cognitive Neuroscience

October 2017 - November 2021

- Thesis: *Neural representations of planning bimanual grasps of functional objects*
 - Brain function lateralization
 - Neuropsychology
- Head of the PhD Student Council at AMU (2019/20)

MS in Cognitive Science

October 2012 - June 2017

- Thesis: *Multivariate analysis of functional magnetic resonance data*
- Graduated with thesis distinguished
- Head of Student Research Group at Institute of Psychology, AMU

Publications

Buchwald, Przybylski, & Króliczak (2018)

Decoding Brain States for Planning Functional Grasps of Tools: A Functional Magnetic Resonance Imaging Multivoxel Pattern Analysis Study.

Journal of the International Neuropsychological Society
Cambridge University Press

Behnke, Buchwald, et al. (2022)

Psychophysiology of positive and negative emotions, dataset of 1157 cases and 8 biosignals
Scientific Data, Nature Publishing Group

Kroliczak, Buchwald, et al. (2021)

Manual praxis and language-production networks, and their links to handedness.
Cortex, Elsevier

Contact Me

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