



Arslan Gabdulkhakov

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Work Experience

June 2022 - Present

Doctoral Researcher

Leibniz Research Centre for Working Environment and Human Factors @ TU Dortmund (IfADo), Germany (www.ifado.de)

Cognitive Neuroscience Research of Fear Conditioning and Extinction Learning, using simultaneous EEG and ultra-high-field fMRI

January 2021 - May 2022

Master Thesis Student

Leibniz Research Centre for Working Environment and Human Factors @ TU Dortmund (IfADo), Germany (www.ifado.de)

Master's Thesis project 'A systematic assessment of the effects of ICA-based artefact correction on multivariate pattern analysis of EEG data.'

- Experimental EEG data acquisition, preprocessing and analysis

February 2020 - March 2022

Student Assistant for Analysis of Neural & Behavioural Data

Institut für Neuroinformatik, Ruhr-Universität Bochum, Germany (www.ini.rub.de)

Dynamics of Learning Group, F01 SFB1280 "Extinction Learning"

- Preprocessing and analysis of intracranial EEG/LFP data collected from rodents and human epilepsy patients performing maze experiments
- Development of advanced neural data analysis tools using Matlab and Python 3
- Development of software for microstates detection, various frequency-domain analyses, analysis of phase-locking, interhemispheric synchrony and connectivity, advanced 3D visualisations, etc.
- Mentoring 1 Master's and 2 Bachelor's students on their semester-long neuroscience data analysis projects

June - August 2021

Teaching Assistant

Neuromatch Academy (www.neuromatchacademy.org)

- Mentoring in Computational Neuroscience and Deep Learning Courses

February - July 2019

Research Assistant (Full-Time)

Westminster International University, Tashkent, Uzbekistan (www.wiut.uz)

Business Information Systems Department

NLP and Computer Vision research on the development of a handwritten Uzbek language recognition system for text summarization and clustering (for both, Cyrillic and Latin Uzbek scripts).

Technologies used: Python 3, TensorFlow, Keras, NLTK, Pandas, sklearn

Education

October 2019 - May 2022

M.Sc. Cognitive Science

Ruhr-Universität Bochum, Germany (www.rub.de)

- Awarded with DAAD Scholarship to pursue Master's Degree
- GPA: 1.6 (good)
- Coursework in Neuropsychological Methods: 1. EEG, 2.fMRI; Clinical Neuropsychology; Artificial Neural Networks; Computer Vision: Deep Learning; Reinforcement Learning, Working & Episodic Memory, Engram

August 2014 - June 2018

B.A. Psychology, minor in Software Engineering

American University of Central Asia, Bishkek, Kyrgyzstan (www.auca.kg);

Joint degree with Bard College, New York, USA

- Converted GPA using Bavarian Formula: 1.29 (very good)
- Awarded with "The Best Senior Thesis of the Class of 2018"
- Thesis Topic: "Development and Testing of the Rorschach Inkblot Method Calculation and Analysis Software for Russian-Speaking Psychotherapists in Kyrgyzstan"

January 2017 - May 2017

Exchange Semester

Bard College, Annandale-on-Hudson, New York, USA (www.bard.edu)

- Focus on Psychology and Computer Science

September 2011 - June 2014

Professional College (Secondary education)

State Transport and Information Technologies College, Namangan, Uzbekistan

- Converted GPA using Bavarian Formula: 1.0 (very good)
- Diploma with Honours

Technical Skills

- **Python 3 (advanced)** experience with Keras, TensorFlow, SciPy, NumPy, sklearn, MNE, nilearn, Pandas, Flask, etc.
- **Matlab (advanced)** EEGLAB, FieldTrip, Signal Processing Toolbox usage and development of custom internal packages for electrophysiological data analysis
- **C/C++ 11 (basic)** STL, OpenMP, MPI.
- Git, ssh, Unix-shell scripting

Accomplishments and Awards

- The Best Senior Thesis of the Class of 2018 (American University of Central Asia)
- The Best Senior Thesis of Psychology Department (2018, American University of Central Asia)
- Award for the Advances in the Research on Therapy and Treatment of Mental Disorders (2017, Annual Psychological Symposium, Kyrgyzstan)
- Award for Successful Completion of Programme in International Education (2017, Bard College, New York, USA)
- Dean's Lists of Recognition of Outstanding Academic Achievements (Top 1% GPA in 2014,2015,2016, American University of Central Asia)

Scholarships

- DAAD Scholarship for Graduates of All Disciplines for pursuing MSc degree at the Ruhr-Universität Bochum, Germany (2019-2022)
- Merit-based full-tuition scholarship for pursuing a BA degree in Psychology at the American University of Central Asia, Kyrgyzstan (2014-2018)
- Merit-based scholarship for an exchange semester at Bard College, USA (2017)

Conferences and Talks

December 2021	Presentation and Hands-on workshop on methods for the analysis of neural time series and multivariate decoding, DataFest Conference, Tbilisi, Georgia (link)
December 2021	Presentation on decoding of working memory contents from EEG with machine learning, DAAD FKR Interdisciplinary Colloquium, Dortmund, Germany (link)
December 2017	Presentation of project on contemporary approaches for Rorschach Inkblot Method-based psychological assessment, Annual Psychological Symposium, Bishkek, Kyrgyzstan

Language Skills

- Mother Tongue: Russian and Uzbek bilingual
- English (C1)
- German (B1)

Extracurricular Activities

2016-2017	Chairman of the Student Senate, Student Representative to the Board of Trustees and Faculty Senate of AUCA
2017	Member of Debate Club "EloquentCrew" at AUCA
2015-2016	PR and Organizational Committee member of the Student Senate at AUCA
2016	Volunteer in the "Babushka Adoption" charitable organization for elderly people
2015-2017	Co-founder and member of the university music band
2014-2016	Photographer and journalist at independent students' newspaper "TheNewStar"