Anton Leontyev, PhD

337-534-1800| a_leontyev@icloud.com | linkedin.com/in/agleontyev | agleontyev.netlify.app

EXPERIENCE

Assistant Professor of Psychology
2022 – Present

Concordia University Wisconsin
Mequon, WI

- Applied Python-based statistical analyses to predict student retention
- Identified student profiles used K-means clustering (Python)
- Applied ETL on structured and unstructured student retention data (SQL) in relational databases
- As a member of the Institutional Review Board (IRB), led the revision of the outdated IRB Policy Manual to ensure HIPAA compliance
- Communicated complex statistical information in an easy to understand format to students and humanities' faculty; coached doctoral candidates in statistical modeling
- Assisted in computing and presenting statistical analysis results for other faculty
- Supervised student research through all stages from idea conception to their peer-reviewed presentation
- Presented research at various local and national conferences

Graduate Researcher
2016 – 2022

Yamauchi Cognition Lab
College Station, TX

- Applied ETL on structured and unstructured electroencephalographic (EEG) and behavioral data (SQL) using relational databases
- Analyzed fMRI data using *FSL* and *nilearn* packages
- Constructed and developed LASSO, Ridge and Random Forest machine learning algorithms models to predict ADHD symptoms
- Prepared and edited study protocols to ensure HIPAA compliance
- Used statistical A/B tests to select the best gamified task design
- Applied EFA, CFA and SEM to identify latent psychometric factors
- Applied hierarchical Bayesian modeling to behavioral data in Python & R
- Used Random Survival Forest machine learning model to predict time-related task performance changes
- Independently devised, planned, programmed, and executed cognitive experiments using Python
- Successfully collaborated on several projects with other researchers and labs, meeting aggressive deadlines
- Mentored students on the principles of scientific research and the basics of experimental design
- Cleaned and summarized open social network data in R and Python
- Used Keras-based neural networks to predict personality traits from open social network data

PROJECTS

SSRTcalc | *R*
2021 – 2022

- Developed a R package to calculate impulsivity indices from laboratory performance
- Implemented hierarchical parameter estimation
- Package passed peer review and is available for download from CRAN

OpenSync | *Python, C, C++*
2019 – 2020

- As a part of the research team, developed an integrative framework for streaming different types of data
- Added multi-device skin conductance and electroencephalographic data streaming
- Implemented continuous testing and validation of streamed data
- A companion article is published in the peer-reviewed *Journal of Neuroscience Methods*

Machine Learning ADHD Assesment | *Python*   2019
- Created an AI-based tool that predicts Attention-Deficit/Hyperactivity Disorder (ADHD) symptoms (AUC = 0.82)
- Identified most appropriate algorithms for assessing ADHD symptoms
- A companion article is published in the peer-reviewed *PloS One journal*

Gladio | *Python*   2018 – 2019
- Developed a neural network that predicts personality traits based on unstructured open social network data
- Client's hiring efficiency improved by reducing turnover rate by 10%

Technical Skills

Programming Languages: Python, R, SQL, JavaScript, Matlab/Octave, bash
Applications/Tools: SPSS, JASP, KNIME, Apache Superset, Git, Docker, RStudio, Google Colaboratory, VS Code, Spyder, Anaconda, Qualtrics, Apache Hive, Excel, Jupyter Notebooks
Libraries: pandas, NumPy, Matplotlib, Pytorch, Keras, Seaborn, Bokeh, scikit-learn, tensorflow, tidyverse, mice, caret, ggplot, lavaan
Other Skills: statistical writing, Linux, LaTeX, Microsoft Office, data analysis, A/B testing, troubleshooting, psychometrics, IRT, item response theory, problem solving, collaboration, excellent attention to detail, ability to work in a dynamic environment, healthcare

Education

Texas A&M University   College Station, TX
PhD in Cognition and Cognitive Neuroscience   *2016 – 2022*

National Research University - Higher School of Economics   Moscow, Russia
Bachelor of Science in Psychology   *2009 – 2013*

Selected Peer-reviewed Publications

Razavi, M., Janfaza, V., Yamauchi, T., **Leontyev, A.**, Longmire-Monford, S., & Orr, J. (2022). OpenSync: An Open-source Platform for Synchronizing Multiple Measures in Neuroscience Experiments. *Journal of Neuroscience Methods, 369*, 109458.

Leontyev, A., & Yamauchi, T. (2021). Discerning Mouse Trajectory Features With the Drift Diffusion Model. *Cognitive Science, 45(10)*, e13046.

Leontyev, A., & Yamauchi, T. (2019). Mouse Movement Measures Enhance the Stop-signal Task in Adult ADHD assessment. *PLoS ONE, 14 (11)*, 1-31.

Leontyev, A., Yamauchi, T. & Razavi, M. (2019). Machine Learning Stop Signal Test (ML-SST): ML-based Mouse Tracking Enhances Adult ADHD Diagnosis. In: *2019 8th International Conference on Affective Computing and Intelligent Interaction Workshops and Demos (ACIIW)*. Cambridge, United Kingdom.

Leontyev, A., Sun, S., Wolfe, M., & Yamauchi, T. (2018). Augmented Go/No-go Task: Mouse Cursor Motion Measures Improve ADHD Symptom Assessment in Healthy College Students. *Frontiers in Psychology, 9*, 496.