Academic Curriculum Vitae
Dirk Gütlin

Liebigstraße 58
49074 Osnabrück,
Germany
dguetlin@uos.de

for more information and work examples, visit my blog:
https://digyt.github.io

Studies

University of Osnabrück
SEPT 2019 - CURRENT

Cognitive Science (Master of Science)

University of Salzburg
SEPT 2016 - JUN 2019

Psychology (Bachelor of Science)

Research Experience

University of Osnabrück, Institute of Cognitive Science
MAR 2020 - CURRENT

Research Assistant, Cognitive Modelling Group:
Programming interactive online experiments for investigating language pragmatics using artificial language models;
Teaching Assistant: 'Experimental Psychology Lab'.
Supervisor: Prof. Michael Franke.

University of Osnabrück, Institute of Cognitive Science
MAR 2020 - CURRENT

Research Assistant, Neurobiopsychology:
Low level feature classification for eye tracking data; Concussion prediction based on eye tracking; Representational Similarity Analysis with EEG data.
Supervisors: Artur Czeszumski, Prof. Peter König.

Google Summer of Code Project with Stipend for Python Software Foundation/ MNE-Python
MAY 2019 - AUG 2019

Google Summer of Code Participation, submitting the project:
'MNE-Python: Improve Time Frequency Analysis in Source Space' for M/EEG data analysis software MNE-Python.
Supervisors: Alexandre Gramfort, Joan Massich, [Jean-Rémi King].

Interests

Cognitive Neuroscience
Neuroscientific Data Analysis
Machine & Deep Learning
Statistics & Time Series
Complex Systems

Programming Languages

Python
MATLAB
R
C#
JS/HTML/CSS (basics)

Centre for Cognitive Neuroscience Salzburg
SEPT 2018 - AUG 2019

Research Assistant, Neurocognition Lab:
Development of research applications, Eye-Tracking measurements.
Supervisors: Michael Leitner, Prof. Florian Hutzler.

University of Salzburg, Department of Psychology
MAR 2018 – AUG 2018

Tutor: 'MATLAB - Advanced Applications':
Neurophysiological data processing with FieldTrip, experimental Designs with Psychtoolbox.
Supervisor: Gianpaolo Demarchi.

Christian-Doppler-Klinik Salzburg
DEC 2017 – SEPT 2018

Intern, Department of Neurology:
Epilepsy monitoring, EEG measurement, automated epileptic spike detection.
Supervisors: Yvonne Höller, Aljoscha Thomschewski.

University of Salzburg, Department of Psychology
NOV 2017 – JUL 2018

Intern, Salzburg Brain Dynamics Lab:
MEG measurement support, MEG Data Analysis (Time-Frequency Analysis, MVPA, Speech Reconstruction using ANN).
Supervisor: Prof. Nathan Weisz.

Other Projects

AI for Climate Hackathon 2021 - "Will it snow on christmas?"
Predicting global snow sheet development based on climate data. Winner of the 'Cryosphere' Challenge.
With Lucas Feldmann & Elias Baumann.
Related Blog Post: https://digyt.github.io/snow_on_christmas

neuropynamics
Collection of Jupyter notebooks and visualization tools for intuitive introductions into the subject of Neurodynamics.
With Lucas Feldmann & Hunaid Hameed.
Github Repo: https://github.com/DiGyt/neuropynamics

Salzburg Visual Field Trainer
Bachelor Project.
Virtual Reality research application for Visual Restoration Therapy. Developed in C# with Unity, for Google Cardboard on Android.
Supervisor(s): Michael Leitner, Stefan Hawelka.

fieldtrip2mne

Python Toolbox for importing MATLAB based FieldTrip data structures into MNE-Python. Integrated in MNE-Python release 0.17 as mne/io/fieldtrip. With Thomas Hartmann.

GitLab Repo: https://gitlab.com/obob/fieldtrip2mne

pymatreader

Python Toolbox for uniform translation of MATLAB (.mat) files into Python. With Thomas Hartmann.

GitLab Repo: https://gitlab.com/obob/pymatreader

Publications

Leitner, M. C., Gütlin, D. C., & Hawelka, S. (2021). *Salzburg Visual Field Trainer (SVFT): A virtual reality device for (the evaluation of) neuropsychological rehabilitation.* Manuscript submitted for publication.
MedRxiv preprint: https://doi.org/10.1101/2021.03.25.21254352