Anna Szonja Weigl

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Engineer at the Lyon Neuroscience Research Center
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Skills: Python MATLAB Javascript SQL

Experience

CatalystNeuro catalystneuro.com — Nov 2020 to Present
Data Scientist Remote

At CatalystNeuro we work closely with neuroscients to help them standardizing the way they are storing, processing, and visualizing their data. We use state-of-the-art tools to ensure that neuroscience is accessible and shared across the international community.

Centre de Recherche en Neurosciences de Lyon (CRNL) crnl.univ-lyon1.fr — Nov 2019 to Present
Ingénieur d'Étude Lyon, France

I work as an engineer in a research team aiming to understand the cognitive neuroscience and neuropsychology behind implicit statistical learning.

- Neural time series data processing
- Functional connectivity analyses
- Statistical analyses

Realeyes Ltd. realeyesit.com — Sep 2018 to Nov 2019
Junior Data Engineer Budapest, Hungary

My role within the R&D team was to integrate datasets into our databases and improving our data visualization tool. I collaborated with other teams to build a scalable storage system on AWS.

- ETL
- AWS

Synetiq Ltd. synetiq.net — Dec 2017 to Sep 2018
Junior Software Engineer Budapest, Hungary

I was focusing on data processing pipeline development and testing in Python. For an independent research project, I learnt how to cluster emotional responses to find groups of people with similar response profiles.

Synetiq Ltd. synetiq.net — Jun 2017 to Dec 2017
Junior Research Manager Budapest, Hungary

Manage, organize and participate in monthly measurement weeks, supervise and train research assistants.

Synetiq Ltd. synetiq.net — Sep 2016 to Jun 2017
Laboratory Supervisor Budapest, Hungary

Participate in monthly measurement weeks, manage and help out research assistants with applying biometric sensors.

Institute of Cognitive Neuroscience and Psychology, MTA TTK ttk.hu
Jan 2016 to Sep 2016

Graduate Student Budapest, Hungary

Study the interictal functional connectivity network changes in patients with temporal lobe epilepsy.

Laboratory of Cerebral Cortex Research, MTA KOKI koki.hu
Jan 2014 to Jan 2016

Undergraduate Student Budapest, Hungary

Education

Pázmány Péter Catholic University, Faculty of Information Technology and Bionics
Sep 2017 to Jan 2020

itk.ppke.hu

Master's of Science, Info-Bionics Engineering

This multidisciplinary program provides a deep understanding of biological processes and measurements (e.g.: neural signals, communications, cell-cell interactions, data processing of living organisms) with an aim to develop engineering solutions, instruments, devices, computational algorithms and models to augment or supplement a biological system.

- neural sciences
- electrophysiology
- electronics
- computer science

Pázmány Péter Catholic University, Faculty of Information Technology and Bionics
Sep 2012 to May 2016

itk.ppke.hu

Bachelor's of Science, Molecular Bionics Engineering

Molecular bionics is a discipline on the boundary of biology, molecular physics and chemistry, and computer technology. The program is run together with Semmelweis Medical University has four disciplinary pillars:

- molecular biology,
- electromagnetic waves in nano- and micron- scale,
- foundations of computing and electronics,
- neurobiology

Projects

eeg-connectivity
github.com/weiglszonja/eeg-connectivity

Framework for computing connectivity measures using MNE

Python, Jupyter Notebook

eeg-preprocessing
github.com/weiglszonja/eeg-preprocessing

A semiautomatic framework for preprocessing EEG data using MNE-Python

Python, Jupyter Notebook

neuroelectrics_eeg_pilot
github.com/weiglszonja/neuroelectrics_eeg_pilot

Sample notebook for preprocessing Neuroelectrics EEG data

Jupyter Notebook

hrv-analysis

github.com/weiglszonja/hrv-analysis

Heart Rate Variability (HRV) tool for detecting and and analyzing peaks on ECG data

Python

memo-workshop

github.com/weiglszonja/memo-workshop

Jupyter Notebook

gorilla-experiment-demo

github.com/weiglszonja/gorilla-experiment-demo

Source code for the experiment demo hosted in Gorilla

CSS, JavaScript, HTML