Emeline Mullier, Ph.D.

Senior Research Scientist | Neuroimaging | Applied AI/ML

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Lausanne, Switzerland (Permis B)

SUMMARY

Senior research scientist with an engineering background with over 9 years of experience in **biomedical applications (**startup & academia**)** at the intersection of **data science**, **statistics**, and **machine learning**.

EXPERIENCE

Research Assistant

October 2023 - Current (40%) | Geneva University Hospital | Geneva, Switzerland

- **Data collection** (EEG & MRI) of a cohort of patients with epilepsia
- Processing & **analysis** on patients with epilepsia + Data **harmonization**

Data Scientist

Apr 2023 - Current (60%) | Lausanne University Hospital | Lausanne, Switzerland

- Data organization (**HPC, Flywheel**) & compliance for reproducibility **(Git, Docker, Datala)**
- Integration of new developments in the connectomemapper3 software **(worflows & GUI).**

Neuroscience Application Specialist

Apr 2021 - Feb 2023 | Seenel Imaging | Lille, France

First neuroscience specialist of the company, developing neuroimaging devices

- Built protocols and algorithms for postprocessing of real-world data (fNIRS, EEG)
- Managed 10+ labs collaboration & promoted the company 6+ workshops & conferences
- Designed technical content for marketing, scientific, tutorials for customers and webinars
- Restructured demonstration, enhanced customer training & ensured after-sales service

Postdoctoral Researcher

Apr 2020 - Apr 2021 | Autism And Brain Behavior Lab | Campus Biotech, Genève, Switzerland

- Analysed diffusion and functional MRI data of 30 children with age [6 months - 9 y.o.]
- Complex data analyses on multi-site large database MRI (1000 acquisitions, 20 sites)
- Directed students in their research projects

Ph.D. Candidate in Neurosciences

Jan 2016 - Mar 2020 | Connectomics Lab, Lausanne University Hospital | Lausanne, Switzerland

- Developed computational methods for multimodal MRI analyses for patients with psychosis

EDUCATION

Ph.D. in Neurosciences (2020) | University of Lausanne | Lausanne, Switzerland

"Towards Spatio-temporal brain connectivity biomarkers for characterization of schizophrenia"
Jury: Prof. Hornung, Prof. von Plessen, Prof. van de Ville, Prof. Hagmann

M.Sc. in Engineering (2015) | Centrale Marseille | Marseille, France

Options: Signal and Image Processing, Bioengineering, Entrepreneurship & Thesis: "Recovering the microstructure of the white matter of the brain from diffusion MRI", EPFL.

TOOLS & PROGRAMMING

Matlab — Advanced

Python (pandas, scipy, numpy…) — Advanced

Linux/Bash — Advanced

Neuroimaging Softwares — Advanced

Data Engineering: Docker, Git, Datalad — Proficient

HTML, CSS, Wordpress — Proficient

TECHNICAL SKILLS

Neuroimaging

Signal Processing

Machine Learning

Statistical Analyses

Data Presentation

Data Engineering

CERTIFICATIONS

2022 - DeepLearning.ai/Coursera Certification - **Deep Learning Specialization** - Online

2019 - Entrepreneurship Training - **Innosuisse Business Concept** - Lausanne

2015 - Entrepreneurship Training - **Les Entrepreneuriales** - Marseille, France

LANGUAGES

English — Fluent

French — Native

German — Basic

Hindi — Beginner