Emeline Mullier

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SUMMARY & OBJECTIVE

I am a research scientist with an engineering background with over 6 years of experience in neurosciences applications at the intersection of signal processing, statistics, and machine learning. I have a strong experience both in academia and start-up environments, working in highly dynamic environments to bring and deploy innovative research solutions to users. Looking for my next new technical challenge to unravel brain and body mechanisms using cutting-edge technologies in stimulating teams valuing collaborative culture flexibility and well-being and meaningful work.

EXPERIENCE

Neuroscience Application Specialist

Apr 2021 - Present

Seenel Imaging | Lille, France

http://www.seenel-imaging.com

First neurosciences specialist of the company, developing neuroimaging research devices Built

- Established protocols & algorithms for postprocessing of biosignals (fNIRS, EEG)
- Forged & managed the collaborations with labs across
- Promoted the company in workshops and leading conferences (fNIRS, ACAPS, OHBM)
- Designed technical content for marketing, scientific tutorials for customers, and webinars
- Restructured on-site demonstrations, enhanced customer training & after-sales service

Postdoctoral Researcher

iii Apr 2020 - Apr 2021

Autism And Brain Behavior Lab | Genève, Switzerland

Aution And Didin Denavior Edd | Geneve, Gwitzenand

 $\underline{\text{https://www.unige.ch/medecine/psyat/fr/groupes-de-recherche/1033schaer/}}$

 $Multimodal\ investigation\ of\ brain\ connectivity\ in\ children\ with\ autism\ with\ Prof.\ Marie\ Schaer$

- Implemented data organization and management (Brain Imaging Data Structure)
- Analyzed diffusion and functional MRI data of ~30 participants
- Explored multimodal approaches on multi-site large database MRI autism (1000 acquisitions, ~20 sites)
- Directed students in their research projects

Ph.D. Candidate in Neurosciences

iii Jan 2016 - Mar 2020

Lausanne University Hospital | Lausanne, Switzerland

Ph.D. Candidate in Neuroscience in Connectomics Lab - https://wp.unil.ch/connectomics/

Multimodal investigation of brain connectivity in patients with psychosis with Prof. Patric Hagmann

- Established processing pipelines of functional MRI data
- Developed computational methods for multimodal analyses (functional, diffusion MRI)
- Quantified statistical comparisons (healthy participants vs patients with psychosis...)

EDUCATION

Ph.D. in Neurosciences

2020

University of Lausanne (UNIL) | Lausanne, Switzerland

«Towards Spatio-temporal brain connectivity biomarkers for the characterization of schizophrenia»
 Jury: Prof. Jean-Pierre Hornung (President), Prof. Kirsten von Plessen, Prof. Dimitri van de Ville (Experts)

M.Sc. in Engineering

2015

Centrale Marseille | Marseille, France

- Options: Signal and image processing, bioengineering, entrepreneurship
- Master thesis: with Prof. Jean-Philippe Thiran, LTS5, EPFL, Lausanne https://www.epfl.ch/labs/lts5/
 Recover the microstructure of the white matter of the brain from diffusion MRI

TOOLS & PROGRAMMING

MATLAB	Advanced
PYTHON	Advanced
Linux/Shell	Intermediate
Neuroimaging software	Proficient

TECHNICAL SKILLS

Neuroimaging - Signal Processing - Machine Learning - Statistical Analyses - Data Presentation

CERTIFICATIONS

Coursera MOOC certification -Improving Deep Neural Networks - Online - 2021

Coursera MOOC certification - Neural Networks & Deep learning - Online - 2020

Entrepreneurship Training - Innosuisse Business Concept - Lausanne, Switzerland - 2019

Entrepreneurship Training - Les Entrepreneuriales - Marseille, France – 2015

LANGUAGES

English	Fluent
French	Native
German	Basic