RUGGERO G. BETTINARDI, PhD

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Data Science // R&D Manager

PROFESSIONAL SUMMARY

Neuroscientist with 10+ years experience working on Data Science R&D projects both in academia and in industry, specialized in the development and validation of biomarkers-based medical algorithms. I have a proven track record in planning, executing and leading innovative projects blending state-of-the-art data analysis, Al and neuroscience to foster advances in healthcare.

EDUCATION

2012 - 2016

Doctor of Philosophy (PhD)

Pompeu Fabra University / Spain, Barcelona

Computational Neuroscience | Cum Laude

2009 - 2011

Master of Science (MS)

San Raffaele University / Italy, Milan

Cognitive Neuroscience | Cum Laude

SKILLS

•	R&D Management	Experienced
•	Data Analysis	Experienced
•	Machine Learning	Experienced
•	Deep Learning	Experienced
•	Research	Experienced
•	Statistics	Experienced
•	Signal Processing	Experienced
•	Neuroscience	Experienced
•	Mentoring	Experienced
•	Python	Experienced
•	PyCharm	Experienced
•	Git Versioning	Experienced
•	Keras, TensorFlow, Sklearn	Experienced
•	MLflow, Coiled.io	Experienced
•	AWS: S3, SageMaker	Skillful
•	Docker	Skillful
•	NLP	Beginner

EXPERIENCE

2019 - Now

Senior Data Scientist

BioSerenity / France, Paris

MedTech -- Developed, tested and deployed feature extraction pipelines, biomarkers detection algorithms and Al models for healthcare applications. Organize and manage collection of medical annotated data to train/test machine learning models. Algorithms documentation for FDA clearance and CE marking. Exploratory analysis of large-scale medical datasets. Supervise and mentor junior data scientists.

2019 - 2019

R&D Manager

Muvraline / France, Paris

Al Startup -- Collaborate in defining the company's R&D strategy by proposing, organizing and leading Al projects to develop. Design and and lead the successful development of two Al prototypes to perform automated facial and speech emotion recognition. Lead interns on applied AI projects.

2018 - 2019

Data Science Postdoc

Ecole Normale Superieure / France, Paris

Research Lab -- Analysis and interpretation of in vivo whole-brain neural dynamics of zebrafish larvae.

2016 - 2017

Data Science Postdoc / Supervisor Centre for Genomic Regulation / Spain, Barcelona

Research Lab -- Statistical analysis of electrophysiological and behavioral data. Supervision of a PhD student.

LANGUAGES

Italian

Native

English

Professional Proficiency

Spanish

Professional Proficiency

French

Professional Proficiency

COURSES

2022

Team Management

BENE Formation

2021

Machine Learning Scientist Track

Datacamp

2019

Machine Learning A-Z

Udemy

2015

Advanced Statistics - Summer School

Universidad Politecnica de Madrid

AWARDS

- FI Pre-Doctoral Scholarship
- LLP / Erasmus Placement
- LLP / Erasmus Program

PERSONAL INFO

- Date of birth: 17 February 1986
- Nationality: Italian

PUBLICATIONS

Bettinardi et al. 2017

"How structure sculpts function: unveiling the contribution of anatomical connectivity to the brain correlation structure" - Chaos: an Interdisciplinary Journal of Nonlinear Science (In the top 10 of the most downloaded paper published in 2017 in the journal). DOI: 10.1063/1.4980099. Cited 60+ times.

Pannunzi, Hindriks, Bettinardi et al. 2017

"Resting-state fMRI correlations: from link-wise unreliability to whole brain stability" - Neurolmage - DOI: 10.1016/j.neuroimage.2017.06.006. Cited 90+ times.

Bettinardi et al. 2015

"Gradual emergence of spontaneous correlated brain activity during fading of general anesthesia in rats: Evidences from fMRI and local field potentials" - Neurolmage - DOI 10.1016/j.neuroimage.2015.03.037. Cited 70+ times.

ACADEMIC / EXTRA PROJECTS

2023 - 2023

GPT - Research Paper Summarizer

Built a GPT4 tool to automatically summarize research articles.



2021 - 2021

Human Activity Classification From Wrist Accelerometer

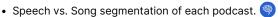
Supervised classification using public database.



2020 - 2021

Data Science @ Radio Lockdown

Tracking of audience listening to each podcast of a friend's webradio.



Speech recognition + topic world cloud visualization of each podcast.



2015 - 2016

How Structure Sculpts Function in Networks

- Simulate how different topologies affects correlation.
- Derive novel measure to predict correlation from structure.



2015 - 2015

Variability of Brain Networks

Analysis of variability of brain structural and functional networks.





2014 - 2014

PoC: Topology of Delay & Network Synchronization

Simulate how information transfer delay affects synchronization.



2011 - 2014

How Anesthesia Modulates Brain Networks

Analyzed changes in brain networks in Deep vs. Light Anesthesia.

