Gaia Burlando

Biomedical Engineer

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PROFILE

Motivated and dedicated Bioengineering PhD student specializing in Neuroengineering and Neurotechnologies. With a solid foundation in engineering principles and neuroscience, I am equipped to navigate the complexities at the intersection of these fields. Committed to excellence, resourceful problem-solving, and interdisciplinary collaboration, I am passionate about driving innovation and making transformative contributions to the field of neuroscience and neurotechnologies.

EXPERIENCE

BIOENGINEERING PHD STUDENT | UNIVERSITY OF GENOA
November 2023 – Current | Genoa, Italy

RESEARCH TRAINEE | AALTO UNIVERSITY
March 2023 – August 2023 | Helsinki, Finland

→ Project: analysis of stereo-electroencephalography signals recorded from epileptic patients.
→ Programming Languages: Python and MATLAB.

PRIVATE TUTOR
January 2018 – Current | Genoa, Italy
Experienced tutor providing private lessons in math, physics, Italian, and English to high school and university students. Offering 10 hours per week of personalized instruction.

PROJECTS

POLYSOMNOGRAPHY ANALYSIS IN INFANTS | PYTHON, MATLAB
2022 - 2023
Pre-processing and analysis of EEG and ECG signals from preterm infants at 33 and 40 weeks to investigate differences in some advanced EEG metrics.

FUNCTIONAL CONNECTIVITY ANALYSIS IN RATS | MATLAB
2022
Analysis of Multi-Unit Activity and Local Field Potentials in two brain regions of a rat.

MICROSTATES IN EEG SIGNALS | MATLAB
2022
Analysis of microstates in EEG data using machine learning algorithms.

CERTIFICATIONS

→ Neuroengineering Summer School - University of Genoa, Italy.
→ Test of English for International Communication (TOEIC) - ETS.

DISSEMINATIONS

INCREASED DELTA-GAMMA PHASE-AMPLITUDE COUPLING DURING N2 SLEEP IN FCD2 EPILEPSY
In Preparation - 2023
Authors: G. Burlando, C. Belforte, L. Chiarella, L. Di Tullio, F. Zubler, I. Sartori, F. Cardinale, L. Nobili, G. Arnulfo, J. M. Palva

INCREASED DELTA-GAMMA PAC DURING N2 SLEEP IN FCD2 EPILEPSY | ESLEEP CONFERENCE POSTER
Poster Presentation - October 2023

INCREASED DELTA-GAMMA PAC DURING N2 SLEEP IN FCD2 EPILEPSY | AIMS CONFERENCE ABSTRACT
Poster Presentation - November 2023

SKILLS

TECHNICAL SKILLS

Programming Languages:
Python • Jupyter • LaTeX • MATLAB • Simulink • C++

Machine Learning:
Data Visualization • Supervised Methods • Deep Learning • Unsupervised Methods

Softwares:
Microsoft Office • AutoCAD • ImageJ • Brainstorm

SOFT SKILLS

Adaptability • Communication • Critical Thinking • Problem Solving • Research • Strategic Planning • Motivation • Team-work • Analytical Skills • Decision Making

EDUCATION

UNIVERSITY OF GENOA
MASTER'S IN BIOENGINEERING
Sept 2021 - Oct 2023 | Genoa, Italy
Final Grade: 110 / 110 cum laude

UNIVERSITY OF GENOA
BACHELOR'S IN BIOMEDICAL ENGINEERING
Sept 2018 - Sept 2021 | Genoa, Italy
Final Grade: 110 / 110 cum laude

M.L. KING SCIENTIFIC HIGH SCHOOL
HIGH SCHOOL DIPLOMA
Sept 2013 - Jul 2018 | Genoa, Italy
Final Grade: 100 / 100

LANGUAGES

→ Italian: native
→ English: C1
→ Spanish: A2

SCOLARSHIPS

→ Merit awards - University of Genoa, Italy
→ Erasmus+ Traineeship - University of Genoa, Italy