

Georgios Bardanikas

✉ georgios.bardanikas@univ-amu.fr

🌐 yorgosbardanikas.github.io

👤 [YorgosBardanikas](#)

in [georgios-bardanikas](#)

Machine Learning ■ Data Science ■ Neural Data Analysis

Computational neuroscientist with 4+ years of experience in **machine learning**, **large-scale neural data analysis**, and **signal processing**. Expertise in applying ML methods and statistical modeling to high-dimensional datasets and developing data processing pipelines.

Technical Skills

Programming	Python (scikit-learn, NumPy, SciPy, Pandas, PyTorch), MATLAB, Git
Machine Learning	Classification, clustering, dimensionality reduction, reinforcement learning
Signal Processing	Time-series analysis, spectral methods, functional connectivity
Data Engineering	Data pipelines, preprocessing, reproducible workflows
Maths & Modeling	Dynamical systems, information theory, statistical modeling

Experience

02/2026 – Computational Neuroscientist

Present Institut de Neurosciences de la Timone, Marseille, France

- Analyzed large-scale intracranial electrophysiological recordings across **148** brain regions from **24** epileptic patients.
- Applied **functional connectivity** and **information-theoretic** methods to characterize whole-brain network dynamics.

10/2021 – PhD Researcher – Computational Neuroscience

12/2025 Institut de Neurosciences de la Timone, Marseille, France

- Designed and executed 3 end-to-end analysis projects on large-scale neural and behavioral datasets.
- Analyzed high-dimensional neural data from **400+** channels across multiple behavioral tasks in **6** macaque monkeys.
- Applied **machine learning** algorithms to decode behavioral states from neural activity.
- Applied **dynamical systems** approaches to characterize the geometry of high-dimensional neural representations.
- Developed scalable **data preprocessing** and **analysis pipelines** for large-scale datasets.
- Collaborated across **3** (inter-)national projects contributing to project coordination.
- Presented scientific work in multiple international conferences.
- Conducted scientific outreach activities to public audiences (schools, university campus).

09/2019 – Research Intern – Neural Signal Processing

09/2020 Donders Centre for Neuroscience, Nijmegen, The Netherlands

- Applied **signal processing** methods and **spectral analyses** in electrophysiological recordings from **6** mice.
- Scientific writing and presentation.

03/2018 – **Data Science Intern – Medical Physics**

06/2018 Istituto Romagnolo per lo Studio dei Tumori, Meldola, Italy

- Developed a GUI to facilitate quality assurance of particle accelerators used in radiation therapy.
- Designed protocols to predict accelerator malfunction.

Education

2021 – 2025 **PhD in Neuroscience**, Aix-Marseille University, Marseille, France

2018 – 2020 **MSc in Neuroscience**, Radboud University, Nijmegen, The Netherlands

2013 – 2018 **Ptychio Physikis (Degree in Physics)**, Aristotle University of Thessaloniki, Greece

Scholarships and Awards

Marie Skłodowska Curie Actions - Innovative Training Network, *In2PrimateBrains*, 3-year funding for my PhD

Neuroschool end-of-phd grant under 'France 2030', 6-month additional funding for the PhD

1st prize for the best poster presentation, 30th Colloque de l'Ecole Doctorale 62, Marseille, France, 30/05/2023, 1st among 80 participants

Erasmus+ Scholarship, 4-month undergraduate internship

Languages

Greek Native User

English Proficient User (C2)

French Independent User (B2)

Spanish Basic User (A2)