

Célia Benquet

M.Sc. in Computational Neurosciences

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About Me

- Challenge-driven and curious.
- Creative and critical thinking.
- Enthusiast about applying computational tools to understand how the brain works.

Programming

Python Matlab Java

SQL

Software

MS Office Google suite

Canva Latex

Awards

EPFL-WISH Foundation Fellowship

The EPFL-WISH (Women in Science and Humanities) rewards EPFL best female students and support them in their Master's Thesis abroad.

Languages

French Native Fluent / C1-C2 **English**

Beginner / A2-B1 German

Interests

Volunteering

• Help Refugees and RCK. Help refugees in Calais (France) by providing food, clothes and every-day necessaries.

Hobbies

- Running, hiking, skiing, scuba-diving: outdoor lover.
- Traveling. Lived in 4 countries since 2016. Visited ~50 countries, more recently Greenland, Canada, Norway, Cuba. Newly-converted slow-traveller.
- · Fencing. 10 years in competition (individual and in team).
- Flute. 12 years at the conservatory (chamber music and orchestra).

Education

FPFI M.Sc. Computational Sciences Engineering, **Biomedical Engineering**

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Associative Life:

2019 - 2022

ESN EPFL, Head Of Communication - Member of the Board of Direction. Lead a team of 6 people and handled the social media strategy and visual image of the association.

Titanic Lémanique, Treasurer - Gala cruise evening. Handled a 50,000 CHF budget.

EPFL B.Sc. Life Sciences Engineering

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Academic Exchange:

Royal Institute of Technology of Stockholm (KTH), Sweden

Associative Life:

Coaching, Treasurer - Integration of first-year students at EPFL. Handled a 3,000 CHF budget.

Work Experience

Visiting Graduate Student (6 months) 🚞 2022

Harvard University, Uchida Laboratory

Neural basis of belief state computation in the brain using ML/RL models. Data consist in activity of multiple neurons while animals are performing a behavioral task. Leading my own independent research agenda and corresponding investigations.

R&D Engineer (6 months)

2021-2022

IHU Strasbourg, France

Cambridge, MA, US



RDS (Rhythm Diagnostic Systems)

Medical device start-up, aiming at bringing to market the first miniaturized and connected wearable medical strip for **real-time monitoring** of several key cardiac and respiratory parameters.

Normality models to detect noises and anomalies in clinical physiologic signals (ECG and PPG). Data mining, AI/ML models, Riemannian geometry. Part of an AGILE work-environment (JIRA, Bitbucket). Participation in the engineering life-cycle of the product.

Student Research Assistant

2020-2021

P Lausanne, Switzerland

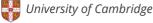
EPFL Ecole Polytechnique Fédérale de Lausanne (EPFL)

- Mathis Laboratory of Adaptative Motor Control (6 months): Discrete Representation of Behaviors in a multi-agent dataset.
- Herzog Lab Laboratory of Psychophysics (6 months): Modeling of Serial Dependency in Visual Perception.
- · Gräff Lab Laboratory of Neuroepigenetics (6 months): Functional Mapping of Remote fear memory extinction.

Summer Research Student (1 month)







Easy-to-use accessible Matlab-tool to map freezing and vocalizing behaviors when fear or anxiety in rats from experimental video recordings to facilitate behavioral analysis.