Célia Benquet

M.Sc. in Computational Neurosciences

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CeliaBenquet
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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 | C++ | 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
English	Fluent / C1-C2
German	Beginner / A2-B1

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

M.Sc. Computational Sciences Engineering, Biomedical Engineering

5.42/6

2019 - 2022 — Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland

Associative Life:

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.

B.Sc. Life Sciences Engineering

5.05/6

2016 - 2019 — Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland

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 — Cambridge, MA, US

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

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 — Lausanne, Switzerland

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)

2019 — Cambridge, UK

University of Cambridge

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.