Célia Benquet
Software Engineer enthusiastic about neuroscience

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About Me

- **Challenge-driven** and **curious**.
- **Creative** and **critical** thinking.
- Enthusiastic 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

EPFL — M.Sc. Life Sciences Engineering, Minor in Computational Sciences 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.

EPFL — B.Sc. Life Sciences Engineering — 5.05/6

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

Academic Exchange (1 year):

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

Research Software Engineer 📅 2022-Present 📍 Geneva, Switzerland

EPFL, Mathis Laboratory of Adaptive Motor Control

Implement new functionalities to CEBRA, a method to map behaviors and neural activity by producing consistent latent spaces. Joint modeling of auxiliary and time-series data, code development, code management and extensions.

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. 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.

Student Research Assistant 📅 2020-2021 📍 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) 📅 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.