

### Juliette Meunier

I am looking for a PhD position in the field of cognitive science, and more specifically in human-computer interaction. My previous experiences have given me the ability to adapt and integrate effectively into a research team.

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Juliette Meunier

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**Portfolio** 



Github page

### Education

2021- Engineer School specialized in cognitics
2024 Ecole Nationale Supérieur de Cognitique (ENSC), Bordeaux, France

2023 Semester abroad in software engineering

Université Laval, Québec, Canada

2018- Bachelor Degree combining mathematic, computer science and cognitive

2021 science

Université de Lille, Lille, France Cognitive science pathway, high honours

# Research experience

december Research engineer- NEARBY Franco-German project

2024 - INRIA, POTIOC team - Bordeaux - Fabien Lotte & DFKI Bremen et Saarbruecken

now Project to study variability- and noise-free brain-computer interfaces (BCIs) for use outside the laboratory.

Protocol design, experimentation and signal analysis.

february - Research internship on EEG and eye tracker data fusion

july Laboratoire CRIStAL - Lille - François Cabestaing, Arne Van Den Kerchove

Study on combining EEG and eye-tracking data in BCIs for patients with eye movement disorders.

Presentation of a poster at the CORTICO conference.

may- Research internship on Brain Computer Interface and stroke rehabilatation

august INRIA, Equipe POTIOC - Bordeaux - Fabien Lotte, David Trocellier

2023 Conducted experiments at the Pellegrin hospital on patients in the chronic phase of stroke,

debugged and improved the code on Unity to prepare the experiment, analyzed the results on

python MNE.

2021- Research internship on P300-Speller Brain Computer Interface

2022 Ecole Nationale Supérieur de Cognitique (ENSC) - Bordeaux - Ricardo Ron Angevin

Protocol creation, experimentation, results analysis, publication of an associated article.

### **Publications**

Meunier, J., Rimbert, S., Prouzeau, A., Lotte, F. (2025). Towards a protocol to find neurophysiological markers of collaborations. CORTICO, May 2025, Lyon, France.

Trocellier, D., Meunier, J., Bechon, L., Motti, P., N'Kaoua, B., Lotte, F. (2025). Brain Kart: A tangible open-source fast calibration BCI for science popularisation. CORTICO, May 2025, Lyon, France.

Meunier, J., Van Den Kerchove, A., & Cabestaing, F. (2024). Using eye-tracker to enhance gaze independent BCI with patients. CORTICO, May 2024, Nancy, France.  $\langle hal-05050113 \rangle$ 

Van Den Kerchove, A., Si-Mohammed, H., Meunier, J., Wilemssens, A., Allart, E., Claeys, K., ... & Cabestaing, F (2024). Towards a covert visual attention BCI for patients with oculomotor impairment. ISO 690

Ron-Angevin, R., Fernández-Rodríguez, Á., Dupont, C., Maigrot, J., Meunier, J., Tavard, H., ... & André, J. M. (2023). Comparison of Two Paradigms Based on Stimulation with Images in a Spelling Brain-Computer Interface. Sensors, 23(3), 1304.

# **Projects**

#### **BrainKart**

2023

2024

In collaboration with David Trocellier / Hack1Robot -Hackatech

Winner of two hackathons with a project using a BCI and alpha waves to control the speed of a robot. Scientific outreach for high school students and participation in forums.

#### 2024 Hackathon on Passive Brain-Computer Interface: workload decoding

Supervised by Léa Pillette (IRISA - CNRS/Université de Rennes)

First place to this hackathon, in which the aim was to establish a machine learning model to classify the level of workload in several tasks.

#### Final year project - EMA-SENS

Supervised by Ernesto Sanz-Arigita (INCIA, SWAN team)

Development of speech recognition in a phone application to add verbal fluency testing to the EMA-SENS project.

## Volunteer Work

### 2023 Ascoergo

Bordeaux Cognitive Science Association

Vice President of Events - Organized informal talks and annual cognitive science forum trip in Paris.

# Special skills

Languages French (Mother tongue)

English-TOEIC: 925

Human factors

User-centered design:

collecting needs, layout, user

tests

### Computer science

Proficient in:

Data analysis: Python (MNE)

Programming: C#

Familiar with:

Data analysis: R, Matlab Programming: Unity Machine learning: Python