

Isabelle Hoxha



PhD student in cognitive and computational neuroscience

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Languages: Albanian (mother tongue), French (native), English (bilingual), German (fluent), Spanish (intermediate)

EDUCATION

PhD in cognitive and computational neuroscience

Subject area “Psychology”, Faculté des Sciences du Sport, Université Paris-Saclay

- Topic: “Neurocognitive mechanisms of perceptual anticipation in decision-making”

Orsay, France

2020–Aujourd’hui

Elite MSc. Neuroengineering

Technische Universität München, “With honours with distinctions”

- Topic: “Evolution of functional connectivity across training in motor-imagery BCI tasks”

Munich, Germany

2018–2020

Engineering degree, Supélec curriculum

CentraleSupélec. Unilateral dual degree agreement with TU Munich

- Project: Phase-amplitude coupling in a neural population model

Gif-sur-Yvette, France

2016–2020

Intensive mathematics and physics training (MPSI/MP*)

Lycée Pothier. Preparation to the French national competitive examinations for Grandes Ecoles

Orléans, France

2014–2016

RESEARCH EXPERIENCE

Student research assistant

Institute for Cognitive Systems, TU Munich

- Study of Error-Related Potentials in autonomous driving simulations: signal processing, experiment design and ethical committee preparation.

Munich, Germany

March –September 2020

Research internship

Neuromuscular Diagnostics Lab, TU Munich

- Topic: Task-dependent switching of feedback controllers. Initial investigation on motor control units in different upper-limb motor tasks.

Munich, Germany

August –October 2019

Student research assistant

Institute for Neuronal Cell Biology

- Electron Microscopy image processing, applied to the study of neurodegenerative diseases

Munich, Germany

March –October 2019

TEACHING EXPERIENCE

Teaching assistant

Faculté des Sciences du Sport, Université Paris-Saclay

Orsay, France

January 2021 –Now

- Biomechanics (Bachelor students) and robotics (Master students) tutorials and practicals

Teaching assistant

Department of Electrical and Computer Engineering, TU Munich

Munich, Germany

November 2019 –September 2020

- Creation of a make-up module in electronics for Neuroengineering master students, and teaching assistant for “Large-Scale Modelling and Large-Scale Data Analysis” tutorials (Neuroengineering master program)

SCIENTIFIC OUTREACH

- **Regional finalist of “Ma thèse en 180 secondes”** Mai 2022
French edition of “3 minute thesis”. 16 finalists among approx. 600 participants over France
- **MSNE Project Week - TU Munich** October 2021
Scientific presentation “Anticipating under all circumstances: a story of neuroscience and mathematics” and workshop “Combined analysis of brain and behavioral recordings”, for master students
- **Communications team - Neuromatch Academy** 2021 –Now
Instagram and Facebook publications manager, creation of songs around computational neuroscience
- **Creation of a Journal Club** 2021 –Now
Creation of a Journal club at the CIAMS laboratory, to promote interdisciplinarity between life and social sciences.
- **Co-founder and content creator - neuralb-synapses.com** 2020 –Now
*NeurAlb is a platform for **neuroscience outreach** for a general Albanian-speaking audience. Articles on Facebook (until September 2021), then on the website.*
- **Communication manager - Espérance en Béton** 2017
Scientific outreach for middle-school and high-school pupils of underprivileged areas. Organisation of a lab tour day.

OTHER ACTIVITIES AND RESPONSIBILITIES

- **Research internship supervision** April –May 2022
Internship (bachelor student) on modelling of sequential effects in perceptual decision-making
- **Master thesis supervision** April –September 2021
Internship on behavioral analysis in the context of implicit learning in perceptual decision-making
- **Graduate School student representative** 2020 –Now

GRANTS AND AWARDS

- **Best reviewer award - Neuroergonomics Conference** 2021
- **Best PhD talk award - EUGLOH Summer School in Neuroscience** 2021
- **FENS-IBRO/PERC Travel Grant** 2020

EXTRA-CURRICULAR ACTIVITIES

- **Music:** Professional degree of piano in 2015, tutti pianist and percussionist at the Musiques en Seine and Rainbow Symphony Orchestras in 2022
- **Dance:** Tango, contemporary and modern-jazz

PUBLICATIONS

- [1] M.-C. Corsi, S. Chevallier, Q. Barthélemy, **I. Hoxha**, and F. Yger, “Ensemble learning based on functional connectivity and Riemannian geometry for robust workload estimation”, in *Neuroergonomics conference 2021*, Virtual event, Germany, Sep. 2021.
- [2] **I. Hoxha**, S. Chevallier, A. Delorme, A. Boutin, and M. A. Amorim, *Decodable anticipation from prestimulus activity*, Published: 3rd Neuroergonomics Conference, Sep. 2021.
- [3] **I. Hoxha**, M. Ciarchi, S. Chevallier, A. Delorme, and M.-A. Amorim, “A non-linear evidence accumulation model that accounts for single-trial dynamics”, in *JOURNAL OF COMPUTATIONAL NEUROSCIENCE*, Issue: SUPPL 1, vol. 49, SPRINGER VAN GODEWIJCKSTRAAT 30, 3311 GZ DORDRECHT, NETHERLANDS, 2021, S29–S30.
- [4] **I. Hoxha**, F. Del Duca, S. K. Ehrlich, F. Bergner, N. Berberich, and G. Cheng, “Improving user comfort in auditory-steady-state-response brain-computer interface by using a co-adaptive stimulus”, en, 2020, Medium: PDF Publisher: Technical University of Munich.