# Maëlle MORANGES

# **Researcher in Neuro-informatics**





- **2023** PhD in Neuroinformatics University of Lyon 1 Emotional and neurophysiological variabilities in olfactory perception: a study through Artificial Intelligence.
- 2018 Master Degree in Molecular Bioinformatics Claude Bernard University Lyon 1 Learning of data mining, machine learning, graphs, complexity, combinatorics, methods of analysis of genomics, transcriptomics and proteomics data.
- 2016 Bachelor degree in Mathematics and Computer Life-Science – Claude Bernard University Lyon 1 Learning of algorithms and programming, database, web, architecture, bioinformatics and genetics.



## PUBLICATIONS

Moranges et al. A Study of Gender-Specific Learning Patterns in Online Medical Education. (*Under review*)

Moranges et al. Using exceptional attributed subgraph mining to explore interindividual variability in odor pleasantness processing in the piriform cortex and amygdala. Intelligent Computing. 2024.

Moranges et al. Peripheral nervous system responses to food stimuli: Analysis using data science approaches. Basic Protocols on Emotions, Senses, and Foods. 2023.

Moranges et al. Using subgroup discovery to relate odor pleasantness and intensity to peripheral nervous system reactions. IEEE Transactions on Affective Computing, 2022.

Moranges et al. Explicit and implicit measures of emotions: Datascience might help to account for data complexity and heterogeneity. Food Quality and Preference, 2021.

Ferdenzi et al. Recovery from COVID-19-related olfactory disorders and quality of life : insights from an observational online study. Chemical Senses, 2021.

Pierron et al. Smell and taste changes are early indicators of the COVID-19 pandemic and political decision effectiveness. Nature communications, 2020.

Moranges et al. Exceptional attributed subgraph mining to understand the olfactory percept. Discovery science, 2018.

# PROFESSIONAL EXPERIENCES

#### **Full-time positions**

2024 2025	<b>Postdoctoral Researcher in Bioinformatics – INRIA</b> Early stroke prognosis prediction and model explainability.
2023 2024	<b>Postdoctoral Researcher in Data Science – UGA - LIG</b> Knowledge extraction from a medical e-learning platform and supervision of three interns on MCQ generation, ranking and evaluation using LLMs.
2020 2023	<b>PhD in Neuroinformatics – CRNL – LIRIS</b> Data mining to understand the link between emotions and neurophysiology in humans.
2018 2019	<b>R&amp;D Data scientist Engineer - Aryballe Technologies</b> Developed chemoinformatics and machine learning models for electronic nose odor recognition.
Temporary assignments	
2023 2025	<b>Teacher – EPITA Lyon</b> Prototyping the Bachelor <i>AI, Biotech and Health</i> curriculum and teaching AI and research courses.
2023	Science Outreach Coordinator – Pop'sciences University of Lyon Creation of content and events on AI in healthcare.
2020 2022	<b>Teacher – University of Lyon 1</b> Courses in data mining, machine learning, databases,

#### Internships

2018 Search in neuroinformatics - INSA – 6 months fMRI analysis to study olfactory perception through exceptional attributed subgraphs mining.

bioinformatics, and neuroscience.

- 2017 Search in bioinformatics CNRS 2 months Modeling metabolic networks by manipulating oriented hypergraphs.
- 2016 Project leader Mycos Technologies 3 months Chiang Maï (Thaïlande)

Project and team management, ergonomics, hardware architecture selection and database management.



### REFERENCES

Marc PLANTEVIT, Pr in data science : <u>marc.plantevit@epita.fr</u> Moustafa BENSAFI, DR in neurosciences : <u>moustafa.bensafi@cnrs.fr</u>