

# Lounes Meddahi

## Summary

Passionate about Machine Learning, I am particularly interested in improving learning methods in complex environments. With a strong commitment to research and its applications, I aim to improve and create novel algorithms and techniques that deepen our knowledge of learning processes.

## Experience

- 02.2024–08.2024, Full-time **Applied Research Intern, Sony AI**, Tokyo, Japan  
Working on new techniques for automatic dish evaluation in Sony's Gastronomy Project.
- 05.2023–11.2023, Full-time **Applied Research Intern, InstaDeep**, Paris, France  
Implementing reinforcement learning train scheduling algorithms in collaboration with Deutsche Bahn.
  - Pivotal roles at InstaDeep: Contributing to the InstaDeep x BioNTech hackathon, Workshop retreats in Berlin for the CTMS project, Nominated and Elected **AI Expert** for the CTMS initiative.
  - **Authored** a research paper to share and present my work.
- 09.2022–04.2023, Part-time **Research Assistant, INRIA – EMPENN**, Rennes, France  
Research assistant focused on using deep learning for segmenting strokes in medical imaging.
  - Proposed and developed a novel approach for multi-modality stroke segmentation.
  - **Authored** and soon submitted a research paper.
- 06.2022–08.2022, Full-time **Research Intern, IMT Nord-Europe – CERI SN**, Villeneuve d'Ascq, France  
Research internship centered on advancing IoT security and scalability using blockchain.
  - **Publication** of results and selected **Best paper award** at IEEE ISNCC'23.
- 06.2021–07.2021, Full-time **Intern, INRIA – Scool**, Villeneuve d'Ascq, France  
Discovery internship in research and reinforcement learning.
  - **Interpretation and in-depth study** of reinforcement learning algorithms and environments; Source code shared in open source.

## Education

- 09.2022–09.2025 **M.Sc. in computer science (Track "Normalien")**, *ENS Rennes*, Rennes, France  
Master's degrees in computer science and mathematics from France's top scientific school.
- 09.2019–06.2022 **B.Sc. in mathematics and computer science (Summa Cum Laude)**., *University of Lille*, Lille, France

## Publications

- [2] **[Oral presentation] Enhancing stroke lesion detection and segmentation through nnU-net and multi-modal MRI Analysis**  
Lounes Meddahi, Stéphanie s Leplaideur, Arthur Masson, Isabelle Bonan, Elise Bannier, and Francesca Galassi, 13th World Congress for Neurorehabilitation (WCNR'24), 2024.
- [1] **[Best paper award] Leveraging blockchain for a robust and scalable device identification in LoRaWAN**  
Lounes Meddahi, Ahmed Meddahi, Patrick Sondi and Fen Zhou, 10th International Symposium on Networks, Computers and Communications (ISNCC'23), **Best paper award**, top 4 out of 404, 2023

## Skills and Interests

- Languages French (Native speaker), English (Proficient: TOEIC C1 and IELTS C1)
- Relevant Courses Reinforcement Learning, Deep Learning, Game Theory, Computer Graphics. [Details](#).
- Programming Python, C, Java
- Interests Programming, Epistemology