

Lounes Meddahi

Experience

- 02.2024–08.2024, **Research Intern, Sony AI**, Tokyo, Japan
Full-time Worked on new models for visual quality evaluation of gastronomic plates generated by robots, within SonyAI's Gastronomy flagship project.
○ Developed statistical models for plates local and overall balance evaluation.
○ Authored a [technical report](#) sharing my work.
- 05.2023–11.2023, **Applied Research Intern, InstaDeep**, Paris, France
Full-time Collaborated with Deutsche Bahn to implement reinforcement learning algorithms for train scheduling.
○ Adapted MuZero, a Monte-Carlo based algorithm, for optimizing train trajectory planning.
○ Authored a [research report](#) presenting my work.
- 09.2022–04.2023, **Research Assistant, INRIA – EMPENN**, Rennes, France
Part-time Research assistant focused on using deep learning for segmenting strokes in medical imaging.
○ Proposed and developed a novel fine-tuning approach for multi-modality stroke segmentation.
○ [Authored](#) a research paper.
- 06.2022–08.2022, **Research Intern, IMT Nord-Europe – CERI SN**, Villeneuve d'Ascq, France
Full-time 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, **Intern, INRIA – Scool**, Villeneuve d'Ascq, France
Full-time 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

- 09.2024–09.2025 **M.Sc. in Mathematics and Machine Learning (Master 2 MVA)**, *ENS Paris-Saclay (France)*
Master's degrees in mathematics, machine learning, and computer vision (Master MVA) from France's top scientific school.
- 09.2022–09.2025 **M.Sc. level in Computer Science (Diplôme de l'ENS)**, *ENS Rennes (France)*
Research oriented degrees in computer science from France's top scientific school.
- 09.2019–06.2022 **B.Sc. in Mathematics and Computer Science (Summa Cum Laude)**, *University of 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 Deep Learning, Computer Vision, Robotics, Reinforcement Learning, Optimal Transport, Software
- Programming Python, C, Java
- Interests Programming, Epistemology