

Lounes Meddahi

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EU citizenship (French)

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

- 05.2023–11.2023 **Applied Research Intern, InstaDeep**, Paris, France
Full-time Improving RL train scheduling algorithms in collaboration with Deutsche Bahn.
○ Leading the design and development of deep RL and GNNs algorithms for train scheduling.
○ Pivotal roles at InstaDeep: Contributing to the InstaDeep x BioNTech hackathon, Workshop retreats in Berlin for the CTMS project, Nominated and Elected as an **AI Expert** for the CTMS initiative.
- 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.
○ Conducted research on deep learning for brain stroke segmentation.
○ Proposed and developed a novel approach for multi-modality stroke segmentation.
○ [Authored](#) and soon submitted a research paper; Tool used at the hospital of Rennes.
- 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.
○ Conducted research on blockchain applied to IoT security and scalability.
○ End-to-end development : model design, tests and results of the proposed approach.
○ [Publication](#) of results and selected **Best paper award** at IEEE ISNCC'23.
- 06.2021–07.2021 **Student Intern, INRIA – Scool (Sequel)**, Villeneuve d'Ascq, France
Full-time Discovery internship in research and Reinforcement Learning.
○ Reading and implementation of different RL algorithms from the scientific literature.
○ [Interpretation and in-depth study](#) of the algorithms; 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**, University of Lille, Lille, France
Graduated Summa Cum Laude.

Publications

MM-STROKENet: A new Approach for Stroke Lesion Segmentation Using multi MRI Modalities
with Assoc. Prof. Francesca Galassi, Dr. Stéphanie Leplaideur, Dr. Elise Bannier and Arthur Masson,
Preprint, 2023

[Best paper award] Leveraging blockchain for a robust and scalable device identification in LoRaWAN
with Prof. Patrick Sondi, Prof. Ahmed Meddahi and Assoc. Prof. Fen Zhou, 10th International Symposium
on Networks, Computers and Communications (ISNCC), 2023

Skills and Interests

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