Lounes Meddahi

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in *LounesMeddahi*
○ *LounesMD*
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*
Full-time
Applied Research Intern, *InstaDeep*, Paris, France
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 **AI Expert** for the CTMS initiative.

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.
- ○ 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.

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.
- ○ 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
Full-time
Intern, *INRIA – Scool*, Villeneuve d'Ascq, France
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

[2] **MM-STROKEnet: A new Approach for Stroke Lesion Segmentation Using multi MRI Modalities**
<u>Lounes Meddahi</u>, Francesca Galassi, Stéphanie Leplaideur, Elise Bannier and Arthur Masson, Soon to be submitted, 2023

[1] **[Best paper award] Leveraging blockchain for a robust and scalable device identification in LoRaWAN**
<u>Lounes Meddahi</u>, 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/C++, Java
Interests	Machine Learning, POMDPs, Non-stationary RL, Graphs, Programming, Epystemology