IMAD EDDINE MAROUF



tfolio

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SKILLS

Computer Vision

Deep Learning

Data Visualization

Machine Learning

Multi-Modal Models

PROGRAMMING

Python



VHDL

JavaScript

FRAMEWORKS / LIBRAIRIES

Pytorch PySpark OpenCV

D3.js

LANGUAGES

French (Fluent)

Arabic (Native)

English (Fluent)

AWARDS/SCHOLARSHIPS

- Erasmus+ Scholarship by IP-Paris 2023-2024
- Excellence scholarship by IP-Paris 2021/2022
- Swiss-European Mobility Scholarship 2020
- Top-10, Hajj Hackathon, Saudi Arabia, 2018
- Top-10, Algiers SmartCity Competition, Algiers, 2018
- 3rd Price, National Electronics Competition, INETECK2017
- 5th position in Cyber Security Competition 2013, Algiers
- Hall of Fame on "Telekom.com", reported a security bug.

EXTRA-CURRICULUM

- Volunteer at Planètes Sciences association
 - Animating "Programming" sessions for children
- Youtube content creator
- Youtube channel providing research papers explanations about Al/Robotics in Arabic language
- Member at Association of Aeronautics & Aerospace, Jussieu, Sorbonne University.
 - Working on a solar drone project





EDUCATION

PhD Student | Continual Learning in Deep Learning |

Institut Polytechnique de Paris



Data&Al Masters Graduate | PhD Track |

Institut Polytechnique de Paris

Palaiseau, France

with Honors, GPA: 16.41 / 20 (Rank: 2/43 students)

Sept, 2020 - 2022

Supervisors: Dr. S. Lathuilière / Dr. E. Tartaglione

Exchange Semester |

Ecole Polytechnique Fédérale de Lausanne (EPFL)

Feb - Sept, 2020 Lausanne, Switzerland

Undergraduate | Electronics Engineering /Minor: Computer Science

Sept 2018 - Feb 2020



Sorbonne Université (ex-UPMC) Paris, France



with Honors, GPA: 15.58 / 20 (Top 3%, 132 students) EXPERIENCES

Research PhD Intern at Computer Vision Center Continual Learning for Visual Question Answering Models

- Developped a distillation method for continual learning in vision-language models for visualquestion answering.

> Supervisor: Pr. Joost Van de Weijer Barcelona, Spain 05/2024 - 10/2024

Machine Learning Consultant, KOBIL Company Speech Authentification Model



Supervisor: Dr. Deniz Kumlu Full-time remote 02/2023 - 11/2023

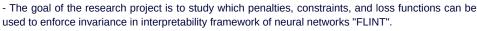
Research Intern at U2IS Laboratory, ENSTA Uncertainty Quantification for 3D Human Pose Estimation



- We proposed a framework to evaluate the plausibility of the predicted 3D human pose with respect to a memory bank of human poses Supervisor: Dr. G. Franchi

Palaiseau, France 04/2021-08/2021

Research Student (Part-time) at LTCI Laboratory, Telecom-Paris Interpretability of Neural Networks / Deep Learning



Supervisor: Pr. Florence d'Alché-Buc Palaiseau, France 10/2020 - 02/2021

Research Student (Part-time) at IVRL Laboratory, EPFL

Unsupervised IR-RGB Joint Video Registration and Fusion



- Aligned two videos of the same scene and bring all the essential information into single video in order to help firefighters throughout their missions. Supervisor: Dr. Hakki Karaimer

Lausanne, Switzerland 02/2020 - 06/2020

PUBLICATIONS

- Marouf I.E, Roy S, Tartaglione E, Lathilière S. "Weighted Ensemble Models Are Strong Continual Learners", ECCV 2024 Oral (Top 3%).
- Marouf I.E, Roy S, Tartaglione E, Lathilière S. "Rethinking Class-incremental Learning in the era of Large Pre-trained Models via Test-Time Adaptation", arxiv:2312.08977 (in-review).
- Marouf I.E, Tartaglione E, Lathilière S. "Mini but Mighty: Finetuning ViTs with Mini Adapters", WACV2024 Conference.
- Marouf I.E, Barras L, Karaimer H.C., Süsstrunk S. "Joint Unsupervised Infrared-RGB Video Registration and Fusion", London Imaging Meeting, LIM 2021 Conference.
- Marouf I.E, "Is GPT-3 The Type of AI We Are Looking For From Ethical Perspective", Digital AI Ethics Student Competition. Ethics4EU 2021.

PROJECTS

Multi-Echelon Supply Chain Optimization with Reinforcement Learning



- We studied RL methods applied for multi-echelon supply chain management problem. We show the strong potential of RL algorithms and their robustness to demand distribution shift.

IAPR Project



- Build a framework from scratch in order to track LEGO robot trajectory, and detect objects passed by the robot.



