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Rayan Samy RAMOUL

AI Engineer

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Profesionnal Experience

Confirmed AI Engineer **Sep 2021 — Present**
Quant AI Lab *Paris, France*

- Goals : Leading the deep learning and computer vision offer of the France team at Quant AI Lab.
- Tasks :
  - Trained and deployed multiple deep learning models on AWS. Created, maintained, and improved the computer vision product.
  - Developed multiple deep learning models to answer client needs and wrapped them in APIs with React or Streamlit UIs.
  - Created applications and demos to answer client needs, such as generative AI, unsupervised embedding of images, object tracking, and anomaly detection.
  - Managed a technical team to achieve company goals. Managed code, reviewed code, and implemented good software engineering practices for deployment and CI/CD.
  - Interacted with clients to help sell the AI offer and understand the field's challenges. Helped clients integrate AI solutions.
- Results : Contributions have resulted in the creation, enhancement, and maintenance of our computer vision product, as well as successful contract signings and integration of AI solutions for clients.

Research Intern in Deep Learning **Mar 2021 — Sep 2021**
Dynamic Meteorology Laboratory / Paris, Sorbonne University *Paris, France*

- Goals : The objective of this internship was to evaluate the contribution of different artificial intelligence techniques for classifying spatial organizations of the low clouds observed by satellites.
- Tasks : Successfully evaluated the effectiveness of various artificial intelligence techniques for classifying spatial organizations of low clouds observed by satellites. Proficiently handled Xarray dataset of geo satellite collection, applying the Image-Embedding technique using a combination of pre-trained models and fully-connected MLP. Utilized PCA for dimensionality reduction and computed clustering labels, with subsequent visualization of feature maps, GradCAM, and implementation of Deep Convolutional AutoEncoders and Deep Clustering.
- Results : Largely reaching the main objectives, discovering new classes of cloud, presented my results to a seminar, results will be presented in an international conference in July 2022 and a paper for a peer-reviewed journal is in preparation.

Research Intern in Machine Learning **Jan 2018 — Jun 2018**
Laboratory of Research in Artificial Intelligence *Algiers, Algeria*

Education

Master 2 in Computer Vision (IMA), *Sorbonne University (ex: University of Pierre and Marie Curie U.P.M.C)* Paris, Sep 2021

- Grade : 15/20, High Honors. Ranked at the top of the internship grades with 18/20 and jury's congratulations.
- Relevant Coursework : Deep Learning and Images Interpretation, Advanced Image Processing, Computer Vision, Medical Imaging.

Entrepreneur Student part of Pepite program, *CELSA Higher-School Paris-Sorbonne* Paris, Jun 2022

- Relevant Coursework : strategy, marketing and market research, building a business model, accounting and management, financing methods, intellectual property, corporate law, communication..

Bachelor in Mathematics and Computer Science, *University of Science and Technology Houari Boumediene* Algiers, Sep 2020

Certifications

Amazon Web Services (AWS) Cloud Practionner **Paris, Sep 2021**
Financial Markets from Yale University **Paris, Jun 2022**

Skills

Tools and Languages	Python, PyTorch, Git, OpenCV, Pandas, Scikit Learn, LaTeX, Linux and Bash, NoSQL, SQL, FastAPI, C++, Javascript and React, Streamlit.
Quantitative Research	Deep Learning, Machine Learning, Computer Vision, Deep Reinforcement Learning (DQN), Mathematical optimization, Mathematical Modeling, Advanced Algorithmic.
Communication	French (Native), English (fluent) and Arabic (basics).

Open Source Contributions

Active Object Localization with Deep Reinforcement Learning. (Repository) Fall 2020
ViT Pytorch Implementation (Repository) Winter 2022
Mutli-Agent RL for hunt environement. (Repository) Spring 2020
Deep Reinforcement Learning for Chess. (Repository) Fall 2019
Find: File explorer app based on NLP helping to organize and retrieve documents. (Repository) Spring 2020