

Marwan Mashra

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Objective: Looking for a 6-month internship position as a Machine Learning Engineer/Data Scientist from March 2023

Education

Sep.2021 - Present

University of Paris Saclay

Paris, France

MSc in Artificial intelligence | GPA: 4.0

Main Courses: ML Algorithms, Deep Learning, Computer Vision, Large-Scale Distributed Data Processing, Generative Models, Applied statistics, Advanced Optimization, Signal Processing, NLP, Information Retrieval, Reinforcement Learning.

Sep. 2018-Aug. 2021

University of Montpellier

Montpellier, France

BSc in Computer Science | GPA: 4.0

Main Courses: Algorithms & Data Structures, Project Management, System design, Object-oriented programming.

Professional Experience

May - Aug. 2022

Research Intern CNRS – LISN

Paris, France

- Designed an approach allowing real-time AI content generation for Augmented Reality, by integrating state-of-the-art text-to-image diffusion models and AR motion tracking techniques.
- Investigated and implemented state-of-the-art methods for diffusion-based image generation, upscaling, and segmentation.
- Submitted a Poster to the IEEE VR 2023 Conference on Diffusion-Based Content Generation for Augmented Reality.

Nov. – Feb. 2022

Research Student University of Paris-Saclay

Paris, France

- Launched, under the supervision of **Isabelle Guyon**, the ML competition TRUSTAI on CodaLab.
- Prepared the Dataset used in the competition, building the preprocessing pipeline, and rigorously following strict guidelines.
- Explored and reviewed more than 10 datasets, diagnosing potential sources of discriminatory biases.
- Determined a bias evaluation metric, after inspecting the scientific literature on fairness in machine learning.

July - Aug. 2021

Software Engineer Intern LIRMM – Research Lab

Montpellier, France

- Led a team of 5 members as a Scrum master, following Agile software development practices and methodologies.
- Designed and built a cross-platform Vocal Assistant, using a microservices architecture with Python, Docker, and Flask.
- Delivered in less than 3 months a Raspberry Pi prototype, along with a design and technical documentation.

June - July. 2020

Web Developer Intern LIRMM – Research Lab

Montpellier, France

- Implemented a digital version of Labo DataViz, by coordinating a team of 3 to build an interactive Web Platform.
- Collaborated with a team from the University of Quebec at Chicoutimi to establish the project specification.

June 2019

App Developer Intern Perform VR

Montpellier, France

- Optimized and tested a virtual reality android mobile application with Java.

Awards and Extra Activities

1st Prize Hackathon

Organized by **HEC & Institute Polytechnique & Irina** | Awarded by **TotalEnergies** (see [certificate](#))

Awarded among 16 teams for having the best preforming AI model. The Hackathon focused on Computer Vision for sustainability.

Excellence Scholarship by Campus France

Selected among 500 students in my city for a 6-year merit scholarship, as part of an exchange program between Yemen and France.

University Tutor

University of Paris-Saclay

Nominated by the Head of Master to tutor first year AI master students.

Student Delegate

University of Montpellier

Elected for 2 years consecutive by the Head of the Computer Science Department to represent more than 100 students.

Academic and personal Projects

Hyponym-Hypernym Extraction [see on [GitHub](#) | read article on [TowardsDataScience](#)]

Built & trained a Named-entity recognition (NER) model and extracted hyponymies in tech patents | Spacy, NLTK, Prodigy

Probabilistic Generative Models [see on [GitHub](#)]

Implemented in PyTorch several probabilistic generative models (VAE, RBM, Real-NVP) | PyTorch, NumPy, Matplotlib

Twitter Streaming Data [see on [GitHub](#)]

Processed, clustered, indexed, and queried tweets from a simulated data stream | Spark, Elasticsearch, TwitterAPI, Socket

Aerial Competition

[see on [GitHub](#)]

Achieved 91.4% accuracy on a multi-class geographic image classification competition | TensorFlow, OpenCV, Scikit-Learn

Skills & Languages

Soft Skills

Leadership, Proactivity, Autonomy, Thirst for learning, Good programming & problem-solving skills, Good communication skills

Technical skills

Machine learning: PyTorch, TensorFlow, Scikit-Learn, Spacy

Programming: Python, SQL/MySQL, C/C++, JavaScript

Tools :

Docker, Kubernetes, Apache Spark, Flask, MongoDB

Languages

English (Fluent)

French (Fluent)