## Yassine Ben Jemaa

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# Machine Learning Engineer open to new Opportunities - September 2025

## **Experiences**

#### **Koordinat,** *Machine Learning Engineer - Copenhagen*

May 2024 - Oct 2024

- implemented AI solutions and state-of-the-art methods for computer vision tasks and NLP tasks.
- Engineered features and built scalable pipelines for data preprocessing, model training, and evaluation to streamline ML workflows.
- Designed and fine-tuned large language models for NLP and computer vision insights.
- Engaged in cross-functional collaboration to present AI capabilities and integrate feedback from technical and non-technical partners.

#### **Trimble,** Software Engineering Intern - Paris

Jun 2022 - Jul 2022

- Contributed to the development cycle of 3D scanning and point cloud processing software.
- Conducted field operations for 3D scene digitization using a laser scanner, ensuring precise data acquisition for software testing.
- Created a Python and QML-based application to streamline data extraction processes, enhancing team efficiency.
- Improved Quality Assurance workflows by implementing automated validation techniques for data integrity.

#### **Michelin,** Data Scientist Project - Paris

Jan 2024 - Mar 2024

- Collaborated with Michelin on a project to implement a machine learning model for time series analysis.
- Developed forecasting models for time series data, benchmarked against physical models, to improve the reliability of financial and operational forecasts.
- Implemented advanced data preprocessing techniques, including time series filtration, to enhance the robustness and accuracy of the predictive models.

## **Projects**

## **Portfolio Project**

Jan 2025 - Apr 2025

- Conducted research on state-of-the-art Deep Learning methods, focusing on Computer Vision and Natural Language Processing applications.
- Implemented and evaluated transformer-based architectures (DINOv2, SAM, LLMs) for object detection, segmentation, and information retrieval.
- Developed pipelines for large-scale data processing, feature extraction, and experimentation with self-supervised learning.
- View research portfolio online

## **Computer Vision Research Project**

Nov 2023 - Jan 2024

- Implemented an advanced Diffusion model in Python using Guided Diffusion techniques for Inpainting problems [Link to Paper]
- Mastered cutting-edge concepts and methodologies in generative models
- Reviewed and synthesized relevant scientific literature, demonstrating a strong skillset in reading and comprehending complex research papers about state-of-the-art AI tools.

## **Education**

## **MSc in Data Science,** *Ecole Polytechnique – France*

Sep 2023 - Dec 2024

• Coursework: Deep Learning, Natural Language Processing (LLM and Transformers), Monte Carlo Methods to Data-based generative model, Hidden Markov models, Computer Vision, Causal Inference, Supervised and Unsupervised Learning.

### **Applied Mathematics and Statistics Engineering Degree,** *Telecom SudParis – France*

Sep 2021 - Dec 2024

- Coursework: Reinforcement Learning, Data Mining, Bayesian Estimation in Markovian Models and Web Architectures
- Modules include: Sustainable Development, Business Law, Economic Performance, and Quality Management.

## A 2-year intensive Mathematics and Physics course, achieved with the highest honors, Paris

Sep 2019 - Jun 2021

• Preparation for the selective entrance examination to French engineering schools (MPSI-MP\*).

#### **Skills**

**Programming** Python (Scikit-learn, PyTorch, Tensorflow), Java, SQL, R, Bash, Git, Docker, C++, AWS.

**Tools** Jupyter Notebook, HuggingFace, LangChain, CUDA, CI/CD Pipelines, Visualization (Matplotlib, Seaborn).

**Soft Skills** Communication, Insightful, Teamwork, Adaptability.

Languages French (Native), English (Fluent), Spanish (Intermediate), Arabic (Conversational).

#### Certificates

## **Deep Learning specialization - Coursera**

2023

Neural Networks and Deep Learning, Hyperparameter Tuning, Regularization and Optimization.

## Online Course, Advanced Planning and Management of Creativity and Brainstorming - MOOC

2021

- Developed skills in using a variety of tools and techniques for facilitating creativity sessions
- Acquired knowledge on how to manage and lead creative teams and innovative groups (Agile methodology).