

Jaouad Chakir

Machine Learning Developer

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About me

Machine Learning Developer with hands-on experience in Python and data analysis.

Skilled at building and improving models to solve real-world problems.

Technical skills

Programming Languages

- Python
- C/C++
- TypeScript

Machine Learning

- PyTorch
- Torchvision
- Keras
- Scikit-Learn
- XGBoost
- Neural Networks
- NumPy
- Pandas
- NLTK

Tools & Technologies

- Git
- Docker
- Bash Scripting

Core Skills

- Computer Vision
- Data Preprocessing
- Model Optimization
- Algorithm Development
- Problem Solving

Languages

- Arabic
- English
- French

Experience

Software Engineer, AI Solutions @ Marwa Retail

Aug 2025 — Present

- Architected a scalable SaaS platform utilizing Express.js and FastAPI to manage inventory data structures.
- Engineered AI/deep learning algorithms for smart allocation, automated restocking, and stock transfers, optimizing supply chain logistics.

AI Intern @ Sofrecom Morocco

Feb 2024 — Aug 2024

- Explored AI model training and data optimization workflows.
- Used XGBoost for tag prediction in the Tagma project.
- Tested additional ML algorithms and neural networks for better accuracy and uncovering hidden patterns.

Projects

Tagma: Automated Tag Prediction System

XGBoost, Data Preprocessing, Machine Learning

- Built a model to predict project tags and streamline classification.
- Improved data quality for higher accuracy.

MLP-from-scratch: Multi-Layer Perceptron from Scratch

Neural Networks, NumPy, Python

- Implemented a neural network for classification tasks.
- Tuned parameters for better performance and efficiency.

Tweets-NLP: NLP and Sentiment Analysis

Decision-Tree, Naive-Bayes, NLTK, TFIDF, Python

- Prepared tweet data to classify sentiment and measure similarity.
- Employed multiple ML algorithms for comprehensive analysis.

Product-Similarity: Product Category Matching

PyTorch, Torchvision, Triplet Loss, Computer Vision

- Fine-tuned a pretrained vision model on top of PyTorch to identify a product's category from images of similar products.
- Applied advanced data augmentation with Torchvision to improve model generalization.
- Chose triplet loss over softmax classification to learn a metric embedding space that recognizes new product categories without retraining.

Visual-Search: Image-Based Product Retrieval

Vector Embeddings, Vector Database, Similarity Search

- Vectorized product images with DINOv3 and FashionCLIP embeddings.
- Stored embeddings in a vector database for fast similarity search.
- Retrieved top-k similar products for unseen items via nearest-neighbor queries.

Listed projects and more available at github.com/jchakir

Education

2021

2024

1337 Coding School

Software Engineering

- Peer-to-peer, project-based curriculum covering C/C++ systems programming, algorithms, and Python under strict code-quality standards.
- Learned advanced problem-solving through peer-based challenges and collaboration.

2017

2019

BTS Al Khawarizmi

Systems and Computer Networks

- Two-year technical degree in network administration, Linux system deployment, and infrastructure security.
- Advanced training in Linux, network design, and CCNA 200-301 fundamentals.