

SUMMARY

Junior AI Engineer with hands-on experience in LLMs, NLP, and deep learning. Skilled in building end-to-end AI systems using Transformers and PyTorch for tasks such as time-series forecasting, object detection, and text summarization. Strong analytical mindset with international experience in Germany and Morocco.

EDUCATION

- National school Of Electronics And Telecommunication

Electronic Systems Of Communication Engineering

September 2022 - June 2025

Sfax,Tunisia
- University Of Sciences

Pre-Engineering Degree In Mathematics And Physics

September 2020 - June 2022

Sfax,Tunisia

EXPERIENCE

- Artificial Intelligence Research Intern

Measurement and Sensors Technology MST, TU Chemnitz

February 2025 - June 2025

Chemnitz, Germany

- Designed and trained a hybrid CNN-Transformer model for Lithium ion battery State of Charge prediction using time series voltage, current signals and temperature.

- Preprocessed time-series inputs (windowing, downsampling, feature scaling) and conducted systematic model and input configuration tuning, identifying an optimal setup achieving 0.86% RMSE.

Technologies: Python, PyTorch, CNN, Transformer, Time-Series Analysis, NumPy, Hyperparameter Tuning.

- NLP Engineer Intern

3D Smart Factory

August 2024 - September 2024

Morocco

- Developed an NLP-powered question generation system using SpaCy and Transformer-based LLMs leveraging Gemini API to adapt interview questions based on candidate CVs and job descriptions.

- Deployed the solution with FastAPI and Docker, integrating PostgreSQL for data storage to improve contextual relevance and automation efficiency.

Technologies: Python, Gemini API, Transformers, NLP, PostgreSQL, FastAPI, Docker.

- Deep Learning Intern

Djagora Fondation

July 2024 - August 2024

Sfax, Tunisia

- Developed an end-to-end AI pipeline combining Whisper for speech-to-text and fine-tuned T5/BART models for multilingual summarization of educational content.

- Developed a Flask web platform to deploy and deliver summarized content interactively, improving accessibility and user experience.

Technologies: Whisper, T5, ffmpeg, Transformers, Finetuning, Hugging face, Flask.

- Software Development Intern

All Soft Multimedia ASM

August 2023

Sfax, Tunisia

- Developed and implemented functionalities for an e-commerce website.

- Worked closely with the design team to enhance user experience.

Technologies: Laravel, Bootstrap, JavaScript, HTML, CSS, MySQL.

PROJECTS

- AI News Aggregation System:

Built an end-to-end AI system that scrapes AI-related content from YouTube and RSS feeds, summarizes it using LLMs, ranks articles via an LLM-based relevance scoring model, and delivers personalized digests through a fully automated production-ready pipeline (scraping → processing → summarization → scoring → email generation).

Technologies: Python, OpenAI API, PostgreSQL, Docker, Feedparser, RSS, YouTube Transcript API
- GOApp:

Built a video analytics system that detects and classifies moving objects in football match footage and developed a Kotlin-based mobile application.

Technologies: YOLOv8, KMeans, OpenCV, Flask, Kotlin, AndroidStudio, REST APIs

TECHNICAL SKILLS

Programming : Python, SQL.

AI & LLMs : OpenAI API, Gemini API, Transformers, Langchain, Hugging Face, LLM Fine-Tuning, N8N.

ML & Deep Learning : CNN/RNN/LSTM, Seq2Seq, Classification, Regression, Time-Series.

Backend & Data : FastAPI, Flask, PostgreSQL, Docker, CI/CD.

Version Control & Workflow : Github, Git, Jira, Agile Scrum, Lean Six Sigma.

## CERTIFICATIONS

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- **Machine Learning Specialization** DeepLearning.AI
- **Neural Network And Deep Learning** DeepLearning.AI
- **Azure AI Fundamentals** Microsoft
- **Machine Learning in Production in Python** Datacamp
- **Certificate Of Participation At XTREEME 16** IEEE

## LANGUAGES

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**English**– C1(Full Professional) **French**– C1(Full Professional) **German**– A2(Elementary) **Arabic**(Native)

## ORGANIZATION

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- **IEEE DAY 2023** : Member of the Logistics Committee
- **Industry 4.0 For Student Forum - I4S** : Member of the Marketing Committee