

Fatma Bouzid

AI Engineer

Applied Research in LLMs and NLP

Seeking AI-focused opportunities



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GitHub

fatma-bouzid

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

August 2024 - September 2024

3D Smart Factory

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

July 2024 - August 2024

Djagora Fondation

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

August 2023

All Soft Multimedia ASM

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

- 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

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

ORGANIZATION

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