

MERYEM AKROUT

Data Scientist - NLP/MLOPs

CONTACT INFORMATION

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PERSONAL PROFILE

I have designed and built various NLP pipelines for global organizations, including the UN, WHO, and several government entities. My experience includes leveraging Language Models and advanced Natural Language Processing to build real-time social monitors and AI-powered decision-making tools. My contributions were pivotal in tackling global issues such as responsible AI development, COVID-19 and sustainability.

EXPERIENCE

ML Consultant & Product Owner | *Freelance* | *Global* | 2023 - present

- Led the development of a GPT-powered personal travel assistant, delivering a futuristic user experience that blends advanced technology with effortless usability.
- Implemented AI ethics guidelines and oversight mechanisms.
- Drove cross-functional collaboration, ensuring alignment with the product vision and market demands.
- Engineered a daily GPT-powered news aggregation and analysis agent, strategically tailored for governmental agencies to assess emerging technologies, evaluating their potential implementation and the opportunities they present for the public sector.
- Innovated fast labeling tools to streamline text data annotation.

Data Scientist | [Citibeats](#) | Full-time | *Barcelona (Remote)* | MARCH 2021 - JUNE 2023

- Worked on various multilingual pipelines for real-time social media monitoring, integrating NLP techniques that include document classification, NER, topic modeling, and noise reduction. These pipelines are pivotal in analyzing public opinions on issues like vaccination and sustainability.
- Implemented [an approach to identify and address gender bias in refined LLMs](#), bypassing the need for re-training.
- Established [an LLM Explainability framework](#) and a general CI pipeline ensuring a reliable model performance, fairness, and scalability.
- Designed, built, and deployed a scalable geo-parsing service using NER and Rule-Based matching.
- Pioneered a "Gratitude" act-of-speech detector for social media leveraging BERT models.
- Shared knowledge through blog posts on ethical AI modeling best practices.

ML Developer | [Lovester](#) | Part-time | *Tunis* | NOVEMBER 2020 - FEBRUARY 2021

- Led the development of a content-based recommender engine tailored for dating app matchmaking.
 - Leveraged regression analysis and model ensembling techniques to enhance matchmaking accuracy.
 - Collaborated with cross-functional teams to ensure seamless integration of the recommender engine.
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EDUCATION

National Institute of Applied Science and Technology (INSAT) | *Tunis* | Honor Graduate - OCTOBER 2021

Computer Networks & Telecommunications Engineer | **Minor:** Data Science

SKILLS

- **Architectures:** State-of-the-art LLMs, Stable Diffusion, and foundational machine learning techniques
 - **Interpretability:** LIME, SHAP, Checklist, Transparent Models
 - **Transfer Learning:** spaCy, Stanza, HuggingFace, OpenAI
 - **Optimization:** Pruning, Distillation
 - **MLOps:** CI/CD for ML, DVC, Docker & Kubernetes for ML, FastAPI, AWS Lambda & SageMaker
 - **NLP:** NLU+NLG, NER, Doc Classification, RAG, LangChain, Haystack, Snorkel, AllenNLP
 - **Management & Interpersonal:** Jira, Scrum, Roadmap Development, Precision, Adaptability, Stakeholder Engagement
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LANGUAGES: English (**TOEIC Expert:** Listening and Reading + Speaking and Writing), French (Native), Arabic (Native), & Spanish (Basic)

INTERESTS: Psychology, Philosophy, Cinema