Oussama Ziada

Currently completing my final-year internship, I am seeking my first full-time position as an AI Engineer starting November 2025

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Education

National Institute of Applied Sciences and Technology Sep 2020 - Sep 2025

Computer Sciences engineering degree

Fifth-year student at INSAT, specializing in artificial intelligence and data science.

Experience

AI Engineer Intern mars. 2025 - Sept. 2025

Imerys - Paris

- Developed a multimodal Retrieval-Augmented Generation (RAG) system leveraging LLMs and combining structured and unstructured sources (text, industrial diagrams, and technical reports) to support engineers in real-time decision-making.
- Built autonomous agents capable of contextual reasoning and task automation by integrating tools and data sources using the Model Context Protocol (MCP).
- Designed and orchestrated workflows for intelligent agents to automate industrial knowledge retrieval and process optimization.
- Deployed end-to-end solutions on AWS, using services like EC2, ECS, Lambda, S3, Sagemaker and API Gateway to ensure scalability, availability, and low latency.
- Contributed to the development of reusable components for LLM-based pipelines within the company's AI infrastructure.

Data Science Research Intern Jul 2024 - Sep 2024

Karunya Institute Of Technology And Sciences - India

- Cleaned and prepared over 7.3K records, ensuring a robust dataset for analysis.
- Conducted trend analysis to identify critical patterns in climate data, directly contributing to agriculture and disaster prevention initiatives.
- Improved model accuracy for meteorological parameter estimation by 10%, leveraging deep learning techniques and historical data.

Data Analysis Intern Jul 2023 - Aug 2023

KPI Associates - Tunisia

- Conducted data analysis on 100K+ records, uncovering key insights for policy recommendations.
- Built an interactive Power BI dashboard summarizing academic performance trends across Tunisian universities.

Academic Projects

Graph Transformer for Human Embryo Classification | *Transformers, Computer vision, GNN, CNN* Jan 2024 - Jun 2024

- Conducted a strong study of the graph principles, transformers, and the integration of Graph Transformer architectures by reviewing over 15 research papers in the field
- Segmented 1,000 embryo images into patches, passing each through a CNN to extract 512-dimensional node features and 256-dimensional edge features, creating a detailed graph representation
- Implemented the Graph Transformer to classify embryos, leveraging the graph structure built from image features and Achieved a 85% classification accuracy, outperforming traditional CNN-based models by 5%

CLUBHUB Project | *Nest.js, Web Development, Git, SQL* Jan 2024 - Feb 2024

- Led the back-end development using NestJS, engaging over 3,000 students and supporting coordination across 15+ student organizations.
- Designed and implemented RESTful APIs with Nest.js, improving data management efficiency and optimizing client-server communication, reducing response time by 20%

Technical Skills

Programming languages and tools: C, Python, SQL,TypeScript, Back-end development (NestJS).
LLMs & Generative AI Retrieval Augmented Generation, Prompt Engineering, Model Context Protocol (MCP).
Machine Learning & Deep Learning tools: Numpy, Pandas, Matplotlib, Seaborn, Scikit-learn, TensorFlow, PyTorch, Keras
Computer Vision: YOLO, Convolutional Neural Networks (CNN), OpenCV, Image processing, Video Analysis
Big Data & Business Intelligence Tools: Apache Hadoop, Apache Spark, HBase, Power BI
Cloud & Deployment: Microsoft Azure, AWS (EC2, S3, Sagemaker, Lambda, API Gateway ...), git, Docker

Certifications

Coursera, Deeplearning.AI certification - Machine Learning Specialization October 2023
IBM, Data science and analytics intro April 2022

Extra curricular Activities

Vice-president of the 2023 National Cybersecurity Congress in Tunisia Sep 2022 - Mar 2023
Active member of IEEE Insat Sep 2021 - Sep 2024

Languages

French: Fluent ; **English:** Fluent ; **Arabic:** Native ;