

Louay Nagati

Second-year Double Degree
Student in Computer
Engineering – Data Science at
ESPRIT and BI/Big Data at 3iL
Ingénieurs



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PROFIL

Passionate about data science and innovative solution development, I master key technologies in AI, Machine Learning, LLMs, and Data Engineering. With hands-on internship experience, I have strong problem-solving skills and a collaborative mindset. I am currently seeking a **4-month internship** to apply my skills and contribute to impactful projects.

COMPÉTENCES

Programming: Python, R, C, C++, Java, JavaFX, .NET

Web Development: Streamlit, Flask, FastAPI, React, HTML, CSS, JavaScript, PHP, Symfony, Laravel

Data Science & AI: Machine Learning, Deep Learning, NLP, LLM, Generative AI

Web Scraping & Automation: Selenium, BeautifulSoup, Scrapy

Databases: MongoDB, SQL, MySQL, Firebase, PostgreSQL

Big Data: Hadoop, Hive, HBase

Visualization: Power BI, Excel

Scripting: Shell (Linux)

CERTIFICATIONS

- NVIDIA – Fundamentals of Deep Learning ↗
- NVIDIA – Building Transformer-Based NLP Applications ↗
- NVIDIA – Generative AI with Diffusion Models ↗
- NVIDIA – Applications of AI for Predictive Maintenance ↗
- 365 Data Science – Machine Learning in Python ↗
- Coursera – Python for Data Science, AI & Development ↗
- ChatGPT for Data Science ↗
- 365 Data Science – Power BI ↗

LANGUES

- Arabic
- French
- English

EDUCATION

3iL Ingénieurs

Engineering Degree in Computer Science, BI/Big Data
2025 – 2027 | Limoges, France

ESPRIT (École Supérieure Privée d'Ingénierie et de Technologies)

Engineering Degree in Computer Science, Data Science
2021 – 2026 | Tunis, Tunisia

BouSalem secondary school

Baccalaureate in Mathematics
2020 – 2021 | Jendouba, Tunisia

WORK EXPERIENCE

Value

Data Science & AI Intern – ESG Analysis Platform
06/2025 – 08/2025 | Tunis, Tunisia

- Designed and built an end-to-end platform for automated ESG report analysis, leveraging advanced **LLMs** and **RAG** techniques to extract key sustainability indicators.
- Developed a robust **Python data processing pipeline** integrating **OCR** and **LangChain** to process heterogeneous document sources (PDF, text, scanned images).
- Implemented intelligent matching and standardization algorithms to align extracted metrics with ESG taxonomies and frameworks.
- Created an **interactive Streamlit dashboard** enabling real-time comparison and benchmarking of ESG performance across multiple organizations.
- Improved the processing speed by 40 % compared to baseline manual analysis workflows.

Medianet

Development & AI Intern – Recruitment Platform
06/2024 – 08/2024 | Tunis, Tunisia

- Developed a **full-featured recruitment platform** using **Laravel (PHP)** and **MySQL**, enabling job posting, candidate management, and interview scheduling.
- Implemented **AI modules** for automated CV parsing and pre-filling application forms, increasing recruiter efficiency and data quality.
- Integrated a **chatbot assistant** powered by NLP models to support candidate-recruiter communication.
- Added features such as real-time messaging, calendar synchronization, and notifications to enhance the user experience.
- Contributed to the platform's deployment and testing in a production-like environment.

PROJECTS

Due Diligence – Web Document Analysis Platform

- Development of a web application using **Streamlit** for the analysis and automatic extraction of information from complex documents, including **web scraping** modules to collect external data.
- Implementation of advanced features: document parsing via **NLP**, automated report generation, and a **Human-in-the-Loop** chatbot powered by **LLMs** and a **RAG** pipeline.
- Integration of a knowledge graph (**Neo4j**) and a document database (**MongoDB**), along with an automated presentation generation module using **Python-pptx**.
- Project awarded **1st Prize – Data Science Category** at the ESPRIT Project Fair.

Audio Data Augmentation using Diffusion Models - Deep Learning Project

- Designed a **data augmentation pipeline** for audio signals using **DDPM** and **VAE** architectures to improve model generalization.
- Processed raw audio into **mel-spectrograms** with Librosa for more effective training in PyTorch.
- Trained and validated a **ResNet-50 classifier** to evaluate the impact of synthetic data on **emotion recognition** tasks.
- Demonstrated measurable performance improvements compared to baseline datasets.

Real Estate Price Prediction – Machine Learning Project

- Developed a **multi-source web scraping pipeline** for **real estate data**.
- Trained **Machine Learning models** (*Linear Regression, Random Forest, XGBoost*) and **selected the best** based on performance metrics.
- Deployed the model in a **full-stack web application** (**Flask REST API + React** frontend + **secure authentication**).

Customer Churn Prediction – Machine Learning Project

- Built an **early detection system** for **at-risk customers** through **historical data analysis**.
- Deployed the model in an **interactive Flask web application**, enabling **real-time visualization** of churn scores and **proactive risk management**.