

# 4 to 6-month Data Science Internship

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## Work Experience

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**Data Scientist Intern on LLMs & Simulation at VMASC** Suffolk, VA, USA  
*Leveraged LLMs and Agent-Based Models (ABMs) for decision-making* August 2024

- Applied GPT-4o and Claude 3.5 through a DoE to explain ABM outputs.
- Used BERT and BART models for extractive and abstractive summarization.
- Evaluated the summaries using BLEU, ROUGE, METEOR

**Data Scientist Intern on LLMs at Miami University** Oxford, OH, USA  
*Leveraged LLMs for Causal Maps and Master-Level Simulation Tests* May 2024 – July 2024

- Leveraged LLMs and word embeddings to connect causal maps
- Evaluated LLMs on Master-Level conceptual modeling through multimodal data
- Assessed the impact of prompt engineering trainings using ANOVA, Pearson Correlation and grounded theory

**Data Analyst at Thuir's Hospital** Thuir, France  
*Created Management Dashboards using QlikView (16k patients)* December 2023

- Conducted hospital data management audit and implemented dashboard solutions.
- Streamlined data processes, improving access to KPIs.
- Conducted comprehensive training sessions for employees to use the dashboards

## Education

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**IMT Mines Alès, MEng (Data Science and AI)** Alès, France  
*Key Courses:* Expected 2025

- Machine Learning (Logistic Regression, Random Forests...)
- Deep Learning (MLP, CNN, RNN, Transformers...)
- ETL & Visualization (Python, R...)
- Databases (MySQL, MongoDB...)
- Web Development (HTML, CSS, JavaScript...)
- Software Engineering (Java)

## Projects (cf. GitHub)

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**House Price Prediction using Machine Learning** Alès, France  
*Developed ML models to predict house prices based on housing characteristics* September 2024

- Engineered features and handled data preprocessing.
- Tuned several ML models using GridSearchCV for optimal performance.

**Image Classification & Sentiment Analysis Project** Alès, France  
*Built a Flask web app leveraging PyTorch and Hugging Face* September 2024

- Integrated PyTorch with DenseNet121 and Hugging Face pipeline.
- Developed a user interface using Flask and Bootstrap.

**Job Offers Scraper for Software Engineers in France** Alès, France  
*Scraped, processed, and analyzed SWE job market data for France* March 2024

- Leveraged Selenium for web scraping job offers from HelloWork.
- Created an interactive R dashboard using 'flexdashboard' and 'shiny'

## Skills, Activities & Interests

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### Languages:

*French (Native), English (Fluent), Spanish (Intermediate)*

### Technical Skills:

- **Programming Languages:** Python, R, SQL, Java
- **Machine Learning & AI:** PyTorch, TensorFlow, Scikit-learn, LLMs API, Ollama, Langchain
- **Data:** Pandas, NumPy, ETL, Matplotlib, Seaborn, Power BI, Qlik, MongoDB, ChromaDB
- **Web Development & Others:** Flask, REST APIs, Git, Docker, Streamlit, Gradio

### Interests:

*Travelling (Trips: India, Nepal, Namibia, Morocco, USA, Europe)*

## Awards

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### Ariane Group Hackathon (Third Prize)

Palaiseau, France

*Optimized Ariane 6 Boosters Delivery Planning (CO2 emissions, time and cost)*

March 2024

- Developed a web app with Streamlit and Flask, integrating a map
- Managed booster logistics data with MongoDB.

### Altéméd Hackathon (First Prize)

Montpellier, France

*Developed a real-time supervision dashboard and map*

October 2023

- Used Power BI to visualize data for predictive maintenance of housing equipment.

### Best Speaker - French Debating Association

Paris, France

*Best Speaker Award: English Debate between IMT Mines Alès and IESEG*

February 2023

## Publications

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**Flandre N., Giabbanelli P. J.** (2024). *Can Large Language Models Learn Conceptual Modeling by Looking at Slide Decks and Pass Graduate Examinations? An Empirical Study.* To be presented at the 43rd International Conference on Conceptual Modeling (EmpER'24) (Oct 28, 2024 - Oct 31, 2024)

## Extracurricular Activities

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### Mountain Bike Captain

IMT Mines Alès

*Led weekly rides, managing logistics and team coordination*

2023 – 2024

### Project Management

Tsiky Zanaka, Namibia

*Managed 11,500€ classroom construction project, overseeing stakeholders*

2022 – 2023

### Class Representative

IMT Mines Alès

*Represented 220 students, mediating between peers and faculty*

2022 – 2025

## References

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**Dr. Philippe Giabbanelli**

Professor at VMASC

## Links

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**LinkedIn:** <https://www.linkedin.com/in/no%C3%A9flandre/>

**GitHub:** <https://github.com/NoeFlandre>