

# NARDI XHEPI

 [nardi.xhepi@polytechnique.edu](mailto:nardi.xhepi@polytechnique.edu)  [linkedin.com/in/nardi-xhepi](https://linkedin.com/in/nardi-xhepi)

## EXPERIENCE

### Dassault Systèmes

*Research Scientist Intern, LLM & AI Agents – ENOVIA*

Feb 2025 – Aug 2025

- Engineered next-gen Generative AI features for ENOVIA, designing Retrieval-Augmented Generation (RAG) pipelines backed by Qdrant and domain-specific Knowledge Graphs.
- Benchmarked and evaluated multiple open-weights models (Mistral Small, SmoLLM 3B, Llama 3.1) for entity extraction tasks, optimizing for accuracy and inference efficiency.
- Implemented hybrid retrieval strategies combining BM25 with early and late interaction mechanisms to maximize precision in entity-relation extraction and graph reasoning.

### Électricité de France (EDF)

July 2024 – January 2025

*Research Scientist Intern - Anomaly Detection Algorithms at DOAAT  
Under the supervision of Paul Boniol and Paul Caron*

- Designed and implemented ensemble-based anomaly detection algorithms that improved AUC-PR by 15% over existing methods, potentially preventing €60M in annual losses from undetected power system anomalies. This methodology forms the basis of upcoming research publication and is used in production.
- Worked on time series analysis and their representation in a feature-based latent space.
- Developed and implemented ensemble methods that aggregate anomaly detectors, achieving performance that outperformed previous approaches on EDF's time series anomaly detection.

## LEADERSHIP & ACHIEVEMENTS

### BendingSpoons First Ascent France

*A weekend of challenges and workshops from BendingSpoons teams*

Nov 2025

Milan, Italy

- Selected among the top 20 students in France to participate in BendingSpoons' First Ascent event

### D4GEN Hackathon Genopole 2025

*Second Place - Biotechnology Competition*

May 2025

- Awarded second place in a biotechnology competition for developing a patient-specific breast cancer treatment solution, competing against over 100 researchers and students.

### Hi!Paris Hackathon 2024

*Technical Excellence Award Winner*

Dec. 2024

- Won the Technical Excellence Award by achieving the highest F1 score on groundwater level predictions.
- Used a Stacking Ensemble approach to deliver the final solution.

## EDUCATION

### École Polytechnique

*Master Data Science*

Saclay, France

Sept. 2024 – Present

- Took an approved gap year during the 2024–2025 academic cycle.
- Relevant courses: Deep learning for time series, Optimization for Data Science, Statistical Learning Theory, Data stream processing

### Telecom SudParis

*Computer Science and Data Science*

Evry, France

Sept. 2022 – Present

- Relevant courses: Machine Learning, Deep Learning, RL, Algorithms and Data Structures

### Lycée Saint-Louis

*Preparatory Class*

Paris, France

Sept. 2019 – Sept. 2022

- Research projects: Implementation of augmented random search (reinforcement learning) in JAVA. The goal was to simulate an autonomous moon lander.

## SKILLS & INTERESTS

**AI & Machine Learning:** Python, PyTorch, TensorFlow, Transformers, Scikit-learn, Time Series Analysis, Optimization

**Generative AI & Data:** Large Language Models (LLMs), RAG Pipelines, AI Agents, Knowledge Graphs, Qdrant (Vector DB), Streamlit

**Development Tools:** Git, GitHub, Bash, Linux

**Languages:** French (Fluent), English (Fluent), Albanian (Fluent), Italian (Intermediate), German (Basic)

**Interests:** Taekwondo (Black Belt, Competition)