TRISTAN LECOURTOIS

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EDUCATION

Master 2 MVA, ENS Paris-Saclay, France

Sept 2025 - Aug 2026

Prestigious French program focusing on advanced mathematics, computer vision, and machine learning.

- Deep learning, Robotics, Statistical learning, Computer Vision, Optimization, Reinforcment Learning
- Advanced mathematics for AI and data science

Master of Computer Science, Mines de Saint-Etienne, France

Sept 2023 - Aug 2026

Ranked among the top 10 French engineering schools for academic excellence.

- Computer Science (Machine Learning, Python, C, C++, algorithmics, SQL)
- Mathematics, physics and chemistry
- Management, leadership and entrepreneurship

EXPERIENCE

Visiting Student Researcher

April 2025 - August 2025

Los Angeles, CA

NASA Jet Propulsion Laboratory

- Advanced embodied AI by extending ROSA, a language-enabled agent powered by LLMs and vLLMs for natural language control of robots via a reasoning-action-observation loop.
- Prototyped semantic and episodic memory systems to enhance contextual recall and self-optimization (internal paper pending approval)
- Integrated new robotic actions on NeBula-SPOT and JPL's Open Source Rover

Data Scientist Intern

Summer 2024

Airbus

Paris, France

- 18% reduction in machine maintenance time using Python scripts to anticipate quality drifts in the aircraft electronic board manufacturing workshop.
- Improved quality control with a JavaScript/SQL monitoring table to track failures.

LLM Research Intern

Jan 2024

Atos

Aix-en-Provence, France

- Training a text2SQL model with Langchain and Ollama for query generation to achieve a 90% execution accuracy
- Explored open-source Foundation models and employed HuggingFace's transformers for NLP tasks
- Development of Retrieval-Augmented Generation (RAG) enabling conversational interactions with documents.

SELECTED PROJECTS

AI Therapist Agent Developed during the UC Berkeley Cal Hacks 2025, this project leverages NLP and conversational AI, using Vapi for voice interaction, to create an empathetic virtual therapist prototype focused on mental health support (Link)

ML-based Self-Diagnostic Tool for Endometriosis Advanced endometriosis diagnosis through a streamlined model, achieving an F1-score of 0.92 and accelerated diagnosis via a concise set of 24 symptoms. (GitHub Link)

SKILLS

Python, PyTorch, scikit-learn, Docker, ROS2, DINO, SAM, LoRA, C/C++, SQL, Chroma, LangChain