

# TRISTAN LECOURTOIS

+33 767220870 ◇ Paris, France, (J-1 visa candidate, does not require sponsorship)

[tristanlecourtois4@gmail.com](mailto:tristanlecourtois4@gmail.com) ◇ [linkedin.com/tristan-lecourtois](https://www.linkedin.com/in/tristan-lecourtois) ◇ <https://tristanlecourtois.github.io>

## EDUCATION

---

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

Sept 2023

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

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

**French "Classes Préparatoires"**, Lycée Pierre Corneille, Rouen

Sept 2021

- Rigorous multidisciplinary cursus, academic excellence, solving complex problems, preparation for top french prestigious engineering schools.

## EXPERIENCE

---

**Machine Learning Research Scientist Intern**

Summer 2024

Airbus

*Paris, France*

- Reduced by 18% the maintenance time of 2 machines in the manufacturing shop floor where aircraft electronic boards are assembled by programming data mining scripts in Python to anticipate the drifts responsible for quality problems.
- Improved the quality control thanks to the development of a new monitoring dashboard for a specific avionic equipment on the company's internal platform using JavaScript and SQL to keep track of the failures imputable to our department.

**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
- Developement of Retrieval-Augmented Generation (RAG) enabling conversational interactions with documents.

## SELECTED PROJECTS

---

**SMS Spam Detection** Training and comparison of ML algorithms for spam detection to gain accuracy of 98% with RNN. ([GitHub Link](#))

**Build LLM from scratch** Character-based LLM centered around characters, trained on a dataset including the works of Shakespeare using the Transformer framework. ([GitHub 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, utilizing an 800-example dataset. ([GitHub Link](#))

## SKILLS

---

Python, PyTorch, TensorFlow, scikit-learn, LLama2, Mistral, LoRA, Arima, C/C++, SQL, Chroma

## ASSOCIATIVE INVOLVEMENT

---

**Les Entrep's Entrepreneurial Program - Construction of an AI-driven automation startup**

Secretary General / VP of Illumines (science association)

Business Manager of Junior Mines Provence (junior enterprise)