# TRISTAN LECOURTOIS

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As a passionate MSc student in computer science, I'm eager to start my career journey in Machine Learning.

## **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
- Electronics, robotics and nano systems (assembler, VHDL, etc.)

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**

NLP Research Intern

Jan 2024

Atos

Aix-en-Provence, France

- Explored open-source Foundation models and employed HuggingFace's transformers for NLP tasks
- Training a text2SQL model for query generation using Langchain and Ollama framework
- Developement of Retrieval-Augmented Generation (RAG) enabling conversational interactions with documents.

## **PROJECTS**

**NL2SQL with LLMs** Designing and training a text-to-SQL model for query generation. Comparing different LLMs (Large Language Model), including LLaMA2 and SQLCODER:34B using LangChain.(Try it here)

Character-based-LLM Building of a language model centered around characters, trained on a dataset including the works of Shakespeare using the Transformer framework. (Try it here)

Combinatorial optimization applied to the travelling salesman problem Study and comparison of approximate solution methods, with proposal of a metaheuristic based on swarm intelligence concepts to find good approximate solutions in a reasonable time.

#### **SKILLS**

Python, PyTorch, TensorFlow, C, C++, SQL, MatLab, HTML, CSS, Git, Docker

## **CERTIFICATIONS**

- CS50's Introduction to Artificial Intelligence with Python by Harvard University
- Generative AI With LLM by Andrew Nj from DeepLearning.AI
- Kaggle Certificate on Deep Learning

#### ASSOCIATIVE INVOLVEMENT

Secretary General / VP of Illumines (science association)

Business Manager and Head of AI of Junior Mines Provence (junior enterprise)