

TRISTAN LECOURTOIS

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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.

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 with Langchain and Ollama for query generation to achieve a 90% execution accuracy
- 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](#))

Character-based-LLM Building of a language model 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, Numpy, pandas, C/C++, SQL, HTML, CSS, Git, Docker

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)