

PIETRO TANURE

Applied Maths Engineer at ENSTA Paris

Looking for entry-level Data Science and Machine Learning position

@ pietro_onnis@hotmail.com

+33 7 49 85 52 51

in [pietro-tanure](#)

[pietrotanure.vercel.app](#)

Paris, France

EXPERIENCE

Machine Learning Researcher Intern

XXII Group - Leading French software publisher in Computer Vision

Apr. 2023 - Oct. 2023

Paris, France

Anomaly detection on images using large scale vision-language models.

- Proposed a novel YOLO+CLIP model, for multi-modal object recognition that is a good compromise between precision and speed, being faster than current SOTA.
- Developed new features in existing API through Continuous Integration (CI)
- Pre-trained and fine-tuned Vision-Language Models for object recognition

Python

Pytorch

Data Science

VLMs

Docker

Anomaly Detection

Master's degree Intern

ONERA - The French Aerospace Lab

Mar. 2022 - Aug. 2022

Meudon, France

Data-oriented modeling of flow in aircraft engine diffuser.

- Proposed a novel autoregressive model for time series analysis and forecasting that accurately simulated changes in stability of the system
- Modeled CFD flow simulations in Python (FEniCS) and C++ (FreeFEM)

Time series

Python

Reduced Order Model

Regression

Data-based

CFD

Computational Physics Internship

ESPCI Paris - Laboratory of Physics and Mechanics of Heterogeneous Media

May. 2021 - Aug. 2021

Paris, France

Numerical study of plasticity in metallic glass.

- Implemented in Fortran the simulation of glass deformation using monte carlo methods
- Statistical analysis of thousands of simulations using Python to find the probability and energy distribution of plasticity events.

Monte Carlo

Optimisation

Fortran90

Shell

Mathematica

Engineering Internship

ISQ - Engineering consulting company

Jul. 2019 - Sep. 2020

Belo Horizonte, Brazil

R&D project to oil and gas companies (Galp and Petrobras) consisting of mathematical modeling of offshore flexible risers during oil extraction.

- Proposed solid deformation model for riser and implemented in MATLAB
- Thermal and Structural analysis done using Finite Element Method

MATLAB

Mathematical Modeling

FEA

SolidWorks

EDUCATION

Master of Science in Engineering - "Diplôme d'Ingénieur"

3.7/4 GPA

ENSTA Paris

2020 - 2023

Paris, France

Courses: Machine Learning Databases NLP Computer Vision Parallel Computing

Data Streams

Master of Science in Fluid Mechanics

3.5/4 GPA

Institut Polytechnique de Paris

2021 - 2022

Paris, France

PROGRAMMING SKILLS

Languages

- SQL
- C/C++
- R
- Python
- Shell
- Fortran
- LaTeX
- MATLAB
- Java

Frameworks

- PyTorch
- Keras
- TensorFlow/TFX
- Pandas
- Docker
- Hugging Face
- River Online ML
- Git
- Next.js
- AWS

LANGUAGES

- Fluent French
- Fluent English
- Conversational Spanish
- Native Portuguese
- Basic German

COURSES

DeepLearning.AI at Coursera - 80hours

- MLOps Specialization - Machine Learning Engineering for Production.

EXTRACURRICULAR ACTIVITIES



Open Source Contribution: River Online Machine Learning

Incremental Local Outlier Factor for streaming data

CFD Brasil

Founding Member

May. 2021 - in progress

- Group of 100 participants dedicated to the dissemination of techniques and methods related to the field of fluid mechanics and mathematical modeling.
- Weekly meetings to share experience in the field. [Watch a meeting](#)



2° Place 1500m State Race

College athlete representing the UFMG team in state athletics competitions

REFERENCES

- Luiz Machado** - Deputy-director of the Engineering School of UFMG
luizm@demec.ufmg.br
- Quoc Cuong Le** - ML Researcher at XXII Group
quoccuong.le@xxii.fr

HOBBIES AND INTERESTS

- Running
- Cinema
- Boxing
- Hiking
- Meditating
- Learning
- Reading