ALI JANATI
Columbia Engineering Data Science MSc Candidate
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EDUCATION

Columbia University, New York, NY
MSc in Data Science. *Aug 2023 - Dec 2024*
Current student.

- Relevant coursework: Algorithms for Data Science, Applied Machine Learning, Applied Deep Learning, Advanced Projects in Machine Learning, Deep Learning for NLP.
- Research Project: Working under Prof. Pierre Gentine as a Graduate Research assistant to fine-tune IBM - NASA geospatial Vision Transformer (ViT) foundation model for recognizing wind damaged forest areas.

Mines Paris Paris, France
MSc and BSc in Engineering and Computer Science. *Aug 2018 - Jun 2023*
Major GPA : 4.0/4.0, Overall GPA : 3.85/4.0. First Class Honors.

- French Top-ranking Master & Bachelor of Science, "Grande Ecole" program, member of PSL University. and ranked amongst the best French Engineering schools.
- Completed Joint Master of Engineering with **ESPCI Paris - PSL**.
- Relevant coursework : Applied Mathematics, Machine Learning, Applied statistics, Computer Science, Fundamental Physics.

Lycée Lakanal Sceaux, France
CPGE PCSI/PC*. *Sep 2015 - Jul 2018*
Major GPA : 4.0/4.0, Overall GPA : 4.0/4.0. Valedictorian.

- Nationwide undergraduate program preparing for the highly competitive entrance exams to the Top-ranking French Schools of Engineering.
- Relevant coursework : Mathematics, Physics, Chemistry, Computer Science.

WORK AND LEADERSHIP EXPERIENCE

Ekimetrics Paris, France
Machine Learning Engineer Intern *Nov 2022 - Apr 2023*

- Engaged in Ekimetrics, a pioneering leader in data science and AI-powered solutions for industry.
- Built a NLP model to monitor market and competitor activity by identifying companies with positive mentions.
- Enhanced the existing model, achieving a 14% increase in F1 score by implementing and benchmarking advanced techniques ranging from Random Forest to Transformer Encoders.

Humanitics.ai, Station F Paris, France
Machine Learning Engineer Intern *Apr 2022 - Oct 2022*

- Contributed to Humanitics.ai, a retail-tech within world's largest startup campus : Station F, and laureate of "future 40" most promising startups in France in 2022.
- Shaped a traffic forecasting model to determine for each one of 500 stores, and each hour of the day in the future, the number of visitors using sophisticated Naïve models, Prophet and Pytorch and exceeded performance expectations by a 7% MAPE drop.

CNRS (French National Centre for Scientific Research) Paris, France
Research Assistant, Computer Science. *May 2021 - Aug 2021*

- Spearheaded the development of Python-based simulation models, significantly enhancing acoustic imagery through Doppler effects, which time accelerated preliminary research outcomes by 15%.
- Conducted bibliographical research, implemented the relevant model for each experience, analyzed given data and results, worked mostly with Scipy, Scikit Learn, Numpy and Matplotlib libraries.

ESPCI & PSL University Paris, France
Research Assistant, Deep Learning. Part-time. *Nov 2020 - Apr 2021*

- Operated in ESPCI & PSL research centers as a research assistant in order to classify images of bidimensional spin models according to whether the total topological charge is null or not.
- Developed and optimized multiple deep neural network architectures using PyTorch, achieving 93% recall in classifying bidimensional spin models, thereby enhancing predictive reliability and contributing to innovative research methodologies.

SKILLS, INTERESTS AND COMMUNITY SERVICE

Languages: English (fluent, TOEFL score : 109/120). French and Arabic (native speaker). Proficient in Spanish.
Programming skills: Fluent in Python (Numpy, Pandas, Scikit-Learn, Pytorch, Plotly, Hugging Face ..), Git.
Associative work: Tutoring for preparatory classes (CPGE) and high school students, Data for Good.
Sports: Soccer (played in Raja Casablanca's at a national level from 2009 to 2014), Fitness, Martial Arts.

PERSONAL PROJECTS

- **Music Labs:** Developing a music centered application containing an Image to Music feature using a personalized version of Hugging Face hosted llava-v1.5-13b and a Sentence to Playlist recommendation feature using TFIDF.
- **Mini GPT:** Training a Transformer Decoder, inspired from the "Attention is all you need paper", on my machine learning lecture slides to be able to generate meaningful character level tokens.