#### JADE YGOUF

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#### **EDUCATION**

#### IMPERIAL COLLEGE LONDON, London

September 2024

MSc, Environmental Data Science and Machine Learning

Applied computing techniques and machine learning to address real-world environmental problems.

Recipient of a full tuition scholarship and sponsorship from TotalEnergies, predicted to graduate with Merit.

<u>Relevant modules:</u> Machine Learning, Computational Mathematics, Deep Learning, Environmental Data, Advanced Programming and Big Data Analytics.

Master thesis: VisionGraph: Using Deep Neural Networks for Automated Digitalisation of Geological Survey's Line Charts

### **UNIVERSITY COLLEGE LONDON, London**

June 2023

Bachelor of Arts and Sciences, majoring in Sciences and Engineering.

Analytically oriented interdisciplinary degree awarded with a First Class of Honours.

<u>Relevant Modules:</u> Econometrics, Microeconomics, International Relations (70%), Data Visualisation with Python (68%), Foundations of Machine Learning (79%), Engineering, Technology and Innovation (73%) and Environmental Economics (73%). <u>Dissertation:</u> From discourses to emotions: A Twitter data-driven study of environmental worry through NLP (73%).

Lycée Lavoisier, Paris June 2019

French Baccalaureate, majoring in Sciences (Further Maths, Physics and Biology) with High distinctions (17.3/20)

#### **EXPERIENCE**

# **TOTALENERGIES, France**

May 2024-Present

#### **Data Science and Machine Learning Intern (Full-time)**

- Developed from scratch python pipelines for image processing and text recognition using Pillow, OpenCV, and Tesseract OCR.
- Implemented on Azure transfer learning techniques, including YOLOv8 and Detectron 2 (Mask R-CNN), to extract the datapoints of line graphs in scanned geological reports, extracting valuable information for carbon capture and storage's team.

### BNP PARIBAS CARDIF, Colombia Summer Data Analyst Intern (Full-time)

Summer 2022

- Developed a data analytics dashboard for Bancolombia using Matplotlib which helped the client identify the main characteristics of their customers while working closely with engagement and marketing teams.
- Researched how analytics permit to deploy an innovative value proposal analysing their set of metrics (KPI's).
- Coded the first pilot project for geolocating customers using Google API by working with unstructured data (+ 3m customers' database).

# **ZUNCHO**, Colombia - United Kingdom Co-founder (Small Business owner)

Jun. 2022-Present

- Collaborated with Colombian artisans to build the first eight prototypes of the recycled bags optimising both user friendliness and visual appeal.
- Researched market trends to effectively target Etsy customers and successfully sold bags at local markets in London.

# UCL STUDENTS' UNION, United Kingdom Women's Officer (Part-time)

Jul.2021 – Jul.2022

 Took leadership inside the UCL Students' Union by launching the Full Stop Campaign and gained expertise in project management by organising weekly events.

# AXA PARTNERS, International Roadside Assistance Agent (Full-time), France OASIS BY FONDACIO, International Volunteer for 6 months, Colombia

Summer 2021 Oct. 2019–March 2020

### **TECHNICAL SKILLS**

- Languages: Python and C++.
- Libraries: Pandas, NumPy, Pytorch, scikit-learn, TensorFlow, nltk, Matplotlib, geopandas, BeautifulSoup, Seaborn and Plotly.
- **Methods:** Machine Learning (multivar. linear/logit, regularised, tree-based and count regressions, neural networks), statistical analysis (hypothesis testing, PCA), NLP (NER, topic modelling), time series, computer vision (Yolov8 and Detectron2).
- Tools & Cloud Platform: Jupyter Notebook, VS Code, Docker, Overleaf, Git, Azure, Dataiku, Google Suite and Microsoft Office.
- Awards: Achieved 3rd place in Warwick's Data Science Society competition with a top-performing Premier League predictive
  algorithm. Secured a top-three position at the H-W3B London Hackathon 2024 by leveraging blockchain technologies for
  sustainability.

## **RELATED ACADEMIC GROUP PROJECTS**

- Developed an interactive map by integrating geospatial and topographical data to assess flood risks effectively.
- Predicted storm behaviour using deep learning and time series models, utilising satellite data from 30 tropical storms.
- Trained a Variational Autoencoder as a generative model for wildfires.

# LANGUAGES AND INTERESTS

- Fluent in English and French (Native); Spanish (Professionally proficient); German (Basic).
- Demonstrated flexibility, adaptability and resilience from having lived in 3 different countries (France, Colombia, and the UK).
- Avid dancer and painter, having developed consistency and a strong work ethic by balancing sports with academics and activities
- Worked in various temporary roles concurrently with academic pursuits at UCL.
- Educated and trained on environmental issues as a facilitator of the Climate Collage.