

# Pa Alieu Dibba

MSc in Advanced Machine Learning and Multimedia Intelligence

Data Science | Computer Vision | Data Engineering

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## ABOUT ME

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MSc graduate in Machine Learning and Multimedia Intelligence with nearly two years of industry experience spanning data science, computer vision, and data engineering. Proven ability to deliver end-to-end solutions, from NLP-driven ranking analysis and CV-based listing research to ETL pipelines and workflow orchestration.

## SKILLS

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**Languages & Frameworks:** Python, SQL, FastAPI, PyTorch, TensorFlow, Scikit-learn, PySpark

**Computer Vision:** OpenCV, YOLO, Faster R-CNN, MTCNN, PointNet, Open3D

**NLP & ML:** Transformers, ViT, GANs, VAE, SHAP, LIME, Sentiment Analysis

**Data Engineering:** dbt, Dagster, Airtable, PostgreSQL, Data Warehousing, ETL Pipelines

**Tools & Platforms:** Git, Google Workspace, Twilio, Slack API, MDM, DMARC

## EXPERIENCE

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- **Data Scientist – AutoRank** 03/2025 – Present  
*Remote – Ghent, Belgium*
  - Analyzed the influence of host badges on Airbnb listing rankings to identify key factors driving visibility.
  - Applied NLP techniques to evaluate how listing description format and content structure affect ranking performance and guest engagement.
  - Analyzed listing image patterns to differentiate visual characteristics between low and high ranked properties.
  - Investigated host qualities and their role in guest booking decisions.
  - Optimized Airbnb listing content (titles, summaries, space descriptions) and generated structured reports on best formatting practices.
  - Conducted Airbnb listing switch analysis and examined its correlation with ranking changes.
  - Performed data collection across Booking.com markets and submarkets for competitive analysis.
  - Built automation pipelines for Airbnb and Booking.com listing onboarding/offboarding, reviews scraping, and property details extraction.
  - Developed Airtable-to-database automation workflows using FastAPI.
- **Student IT – Otamiser** 10/2024 – 03/2025  
*Remote – Ghent, Belgium*
  - Designed and implemented data warehouse pipelines to support business intelligence workflows.
  - Performed data transformations using **dbt** and orchestrated pipelines with **Dagster**.
  - Evaluated and integrated modern data engineering tools to optimize data solutions.
- **IT Support Intern – Otamiser** 08/2024 – 10/2024  
*Remote – Ghent, Belgium*
  - Built a centralized 2FA logging and monitoring system integrating Twilio, Gmail, and Slack.
  - Configured MDM, VPN security policies, DMARC, and managed Google Workspace accounts.
  - Contributed to the company's Data Warehouse project.

## EDUCATION

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- **Sidi Mohamed Ben Abdellah University** Fès, Morocco  
*MSc in Advanced Machine Learning and Multimedia Intelligence* 2023 – 2025
  - **Thesis:** Leveraging Attention Mechanisms in GANs for Skin Lesion Classification
- **Sidi Mohamed Ben Abdellah University** Fès, Morocco  
*BSc in Computer Science and Mathematics* 2020 – 2023
  - **Thesis:** Mobile app for smart home device control via Bluetooth and Arduino
- **University Mohammed V of Rabat** Rabat, Morocco  
*Certificate in French Proficiency* 2019 – 2020

## PROJECTS

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- **Pedestrian Detection + Explainable AI (YOLO + SHAP/LIME)** Jan 2024
  - Deployed YOLO-based pedestrian detection and interpreted model decisions using SHAP and LIME.
- **Traffic Sign Detection (Faster R-CNN + Haar Cascade)** Jan 2024
  - Built a hybrid detection system combining deep learning and classical computer vision methods.
- **Facial Detection and Classification (MTCNN + LBP + SVM)** Oct 2023
  - Combined MTCNN face detection with LBP feature extraction and SVM classification.
- **RL-based Image Classification with Vision Transformer (ViT)** Feb 2024
  - Trained a reinforcement learning agent using ViT-extracted features for image classification.
- **COVID-19 Trend Prediction with PySpark** Jun 2023
  - Analyzed global COVID-19 trends using MLlib and LSTM on large-scale distributed data.

## LANGUAGES

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**English:** Fluent (Anglophone)    **French:** Fluent

## ENGAGEMENTS & LEADERSHIP

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- City Representative, Gambian Students in Fès (2022–2023)
- GASAM Mentorship Program Member (2022–2023)
- Winner, Most Active on Social Media – GASAM (2023)