Adnan **Ben Mansour**

PhD in AI (3rd year) · Research Scientist

Paris, France

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| | | | adnan-ben-mansour.github.io

Education

PhD in Artificial Intelligence (CIFRE) — *2023 – 2026 (expected)*

École Normale Supérieure of Paris — *Paris, France*

- Title: Study of multimodal models for document understanding
- Under the supervision of Prof. David Naccache and Dr. Ayoub Karine

Diploma from École Normale Supérieure of Paris (DENS) — *2018 – 2022*

École Normale Supérieure of Paris — *Paris, France*

- Includes M1 in Computer Science and BSc degrees in Computer Science and Mathematics.

Master's Degree in Artificial Intelligence, Systems and Data — *2020 – 2021*

Paris-Dauphine University — *Paris, France*

Classes préparatoires (MPSI-MP*) to the Grandes Écoles — *2015 – 2018*

Fénelon High School — *Paris, France*

- Intensive courses in Mathematics, Physics and Computer Science ending with competitive exams

Publications

Improving CTC-Based Scene Text Recognition via Gaussian Patch Sorting — *2026*

A. Ben Mansour, A. Karine, D. Naccache — *Submitted @ AAAI 2027*

Dense Per-Step Rewards for Reinforcement-Learned Reading Order in STR — *2026*

A. Ben Mansour, A. Karine, D. Naccache — *Oral @ MELEX Workshop, ECCV 2026*

Interpret, Prune and Distill Donut: Towards Lightweight VLMs for VQA on Documents — *2025*

A. Ben Mansour, A. Karine, D. Naccache — *Oral @ WML Workshop, ICDAR 2025*

Visualisation des interactions multimodales dans les modèles vision-langages — *2025*

A. Ben Mansour, A. Karine — *Oral @ ORASIS 2025*

FedControl: When Control Theory Meets Federated Learning — *2022*

A. Ben Mansour, G. Carenini, A. Duplessis, D. Naccache — *Oral @ New in ML Workshop, ICML 2022*

Federated Learning Aggregation: New Robust Algorithms with Guarantees — *2022*

A. Ben Mansour, G. Carenini, A. Duplessis, D. Naccache — *Poster @ ICMLA 2022*

Work experience

Research Scientist in AI (CIFRE) — *Oct. 2023 – present*

be-ys Research — *Paris, France*

- Research and development on **Multimodal Document AI** and **Visual Question Answering (VQA)**.
- Design and optimization of lightweight **Vision-Language Models (VLMs)** using pruning and distillation techniques.
- Advanced document understanding using **RAG (Retrieval-Augmented Generation)** and large-scale OCR-free architectures.
- Research on **Deepfake Detection** and digital document authenticity verification.

R&D Engineer in AI — *Oct. 2022 – Oct. 2023*

be-ys Research — *Paris, France*

- Fraud detection using **Anomaly Detection**, **eXplainable AI**, **Active Learning**.
- Deep learning on **tabular** and **sequential data**.

Honors & Awards

Hack the World(s) #1 — 2026

JEPA world-models hackathon backed by Y. LeCun, jury chaired by J. Ponce (100 selected participants, 25 teams)

Peer-voted #1 at Interpretability Hackathon — 2022

on Interpretability, ML Safety & Generality criteria (of 25 teams), hosted by Apart Research & N. Nanda

3rd Prize at New in ML Workshop (ICML 2022) — 2022

for *FedControl: When Control Theory Meets Federated Learning*

Skills

Research	VLMs, C. Vision, Mechanistic Interp., Representation Learning, World Models, RL, Efficiency, Applied Mathematics
ML Engineering	PyTorch / Lightning / TorchRL, VLM inference (vLLM, LangGraph, RAG), MLOps
Software	Python (advanced), modern C++, Python & C++ interop, C, OCaml, SQL, Git, Linux/Bash
Languages	French (native), English (professional), Arabic (conversational), Portuguese (basic)