

Adam Rida

Data Scientist and AI Research Scientist

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Personal website: adrida.github.io | Github : [adrida](https://github.com/adrida) | [Google Scholar](#)

PROFESSIONAL EXPERIENCE

Autoplay AI

Paris, France / New York City, USA

Head of AI - Founding team

01/2025 - Present

- Led AI Research & System Design: Designed and built a state-of-the-art AI inference pipeline from scratch to model and understand user behavior based on multi-modal data analysis (events, mouse activity, interactions).
- Developed Multiple AI Models: Built specialized models for detecting user hesitation, knowledge gaps, intentions, and behavioral patterns, combining LLMs (Gemini family) and classical machine learning (Sklearn, time series analysis, tabular data models).
- Implemented Knowledge Extraction Systems: Created augmented search capabilities across user profiles, enabling effective retrieval of insights from complex user interactions.
- Applied Unsupervised Learning & Clustering: Deployed clustering and rule based models to automatically detect struggling user segments, improving the user experience by surfacing hidden insights and providing human-interpretable insights.
- Processed High-Volume Data: Analyzed millions of interaction events across thousands of user session replays, providing critical insights for product enhancement and usability improvement.
- Integrated Vector Search Frameworks: Leveraged Pinecone for efficient vector-based retrieval, enabling fast and precise data querying.
- End-to-End Project Delivery: Completed R&D, implementation, and deployment of multiple AI models in less than 3 months.
- Cross-Functional Leadership: Collaborated closely with full-stack developers and business strategists to ensure AI systems aligned with broader product goals.

Entrepreneur First - SynthAI

Paris, France

Co-founder and CTO

05/2024 - 12/2024

- Developed an AI co-pilot for investment thesis generation in private equity, releasing three live prototypes to over 100 private equity funds.
- Engineered a proprietary PDF parser and innovative multi-document summarization techniques using knowledge graphs (GraphRAG and Multi-headed RAG).
- Led product design, development, and AI research, addressing RAG limitations in summarization.
- Acquired by one of our customer

MFG Labs

Paris, France

Data Scientist II

11/2023 - 04/2024

- Optimized supply chain operations for a luxury brand using AI, tackling data scarcity challenges.
- Designed strategies to minimize stockouts while effectively meeting customer demand.

AXA / Sorbonne University – CNRS

Paris, France

AI Research Scientist - Ph.D. Candidate

10/2022-10/2023

- Conducted research on Responsible and Explainable AI within AXA's R&D team.
- Developed new approaches for differential explanations to interpret differences between models.
- Authored a research paper accepted at ECML/PKDD 2023 workshop.

Société Générale Corporate and Investment Banking - SGCIB

Paris, France

Data Scientist

09/2021-09/2022

- Created predictive analytics tools and dashboards for sales teams, boosting performance significantly.
- Processed large datasets (>20M rows monthly) using PySpark and Kedro.
- Implemented code guidelines and team management processes for a 10+ team.

Rebellion Research AI Asset Management

New-York City, USA

Machine Learning Quantitative Researcher, Internship

02/2021-09/2021

- Constructed deep reinforcement learning investment strategies, achieving a 21% annualized return and 1.8 Sharpe Ratio.
- Engineered features from SEC 13-F filings to enhance model performance.
- Published essays on AI and cryptocurrency, reaching over 100,000 readers.

Qantev

Paris, France

Data Scientist, Internship

04/2021-08/2021

- Achieved 97% accuracy in medical insurance NLP models, up from 70%.
- Optimized data processing architecture, increasing speed by 70%.
- Collaborated in an agile, test-driven environment with high code standards.

Software Engineer, Internship

06/2020-10/2020

- Implemented front-end views in collaboration with the UI/UX team using React JS and Python.

EDUCATION

Sorbonne University – CNRS - LIP6 – AXA

Paris, France

Ph.D. Candidate in Computer Science – Artificial Intelligence

2022-2023

- Specialized in Explainable AI (XAI) focusing on differential explanations between models.
- Part of the AXA-Sorbonne University Trustworthy and Responsible AI Lab (TRAIL), supervised by Christophe Marsala, Marie-Jeanne Lesot and Xavier Renard.
- Transitioned to industry after one year because of a financial emergency.

CY Cergy Paris Université - CY Tech (ex EISTI - École d'Ingénieur -)

Cergy, France

Master's degree in Applied Mathematics and Data Science – (Diplôme d'Ingénieur)

2017-2022

- Ranked in the top 8% with a grade of 16/20 (Grade A).
- Relevant Coursework: Machine Learning, Deep Learning, Statistics, Econometrics, Time Series Forecasting, Optimization, Artificial Intelligence, Databases.

- Master's Project: Time series forecasting of SWIFT transactions and the impact of macroeconomic indicators at Société Générale.
- Ecole 42** **Paris, France**
2017-2020
- Intensive 3-year program*
- Studied algorithms and C programming through peer-to-peer, project-based learning.
 - Ranked 24th out of 900 applicants in a competitive one-month programming session.
- Lycée Charlemagne** **Paris 4, France**
2016
- High School degree - Among top Parisians high schools - French Baccalauréat with Honors, Mention Bien (14.5/20)*

SKILLS

Data Science and AI: Explainable AI (XAI), Concept Drift Analysis, Model Dynamics, Machine Learning & Deep Learning, LLM Engineering (RAG Pipelines, LangChain), Deep Reinforcement Learning, NLP (Topic Modeling, Transformers, BERT), Unsupervised Learning & Data Mining, Advanced Document Parsing & Summarization: GraphRAG, Multi-headed RAG, Graph Neural Networks (GNNs)

Frameworks and tools: TensorFlow, PyTorch, Keras, Kedro, PySpark, Gradio, React, Dash, Pinecone,

Languages:

- French: Native
- English: Fluent (Toeic 965/990)
- Spanish: Conversational

Programming languages: Python (Numpy, pandas, scikit-learn), R, Java, C, Scala, SQL

PUBLICATIONS AND PROJECTS (all links, more details and access to code at adrida.github.io)

- **Dynamic Interpretability for Model Comparison via Decision Rules**, Adam Rida, Marie-Jeanne Lesot, Xavier Renard, Christophe Marsala; ECML/PKDD 2023 DynXAI Explainable Artificial Intelligence: From Static to Dynamic Workshop
- **Deep Reinforcement Learning & Feature Extraction For Constructing Alpha Generating Equity Portfolios**, Alexander Fleiss*, Amrith Kumar*, Adam Rida*, Junsup Shin, Xinying Lai, Vivian Fang, Jialiang Chen, Ang Li.: SSRN (> 200 downloads *:equal contributors)
- **Temporal Augmented Retrieval (TAR)** - Dynamic RAG (Open Source Project - 21 stars on Github)
- **Published essays**
 - "What is Explainable AI?", Rebellion Research, 2021
 - "Why Does Nobody Want Crypto?", Rebellion Research, 2021
 - "1636 Tulip Mania, GameStop, Crypto, and Social Media", Rebellion Research, 2021
 - "Should We Aim For Humain-AI Coordination Instead Of Human-AI Confrontation?", Rebellion Research, 2022
- **Web3 Projects:**
 - Developed projects with over 3,000 users and achieved multi-million-dollar market caps (details available upon request to protect anonymity)

ADDITIONAL INFORMATION

References: Available upon request.

Note: All links, more details, and access to code are available on my personal website.