

Diriana Tiney Ravelonarivo

Junior IA & ML

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SUMMARY

With over 3 years in intelligent systems and algorithmic automation, I have optimized the performance of many projects. My expertise in AI, machine learning, and model integration in production remains the greatest achievement of my career.

EXPERIENCE

Data Science & IA Internship
Ministry of Land Management and Topographic Services

📅 05/2023 - 08/2023 📍 Rue Ranaivo Jules, Anosy

Designed and implemented a demographic forecasting project using machine learning techniques for population prediction in Tananarivo.

Tools: openCV, pfsense
Github: <https://github.com/drKopp/prediction-population-tananarivo>

Master's Professional Project

📅 05/2025 - 01/2026

Developed an intelligent e-commerce prototype integrating facial biometrics (DeepFace), NLU chatbot (Rasa & local LLM), and recommendation system (Sentence Transformers) as part of the IAFINT project focused on AI integration in the Malagasy context.

Projet personnel

Trading algorithmique

📅 02/2025 - Présent

Development of a set of notebooks for financial data analysis, stock price prediction, and trading strategy backtesting.

- Feature Engineering: extraction of technical indicators (SMA, MSD, custom indicators) and creation of modular functions for enriching historical data.
- Supervised Modeling: use of polynomial regression to predict stock prices, with performance comparison across different model degrees.
- Vectorized Backtesting: portfolio simulation with advanced performance metrics calculation (Sortino Ratio, Beta/Alpha, Drawdown), using reusable functions optimized for other strategies.
- Project structured into 3 notebooks: variable engineering, predictive modeling, and strategy validation.

Tools: Python, Jupyter Notebook, Scikit-learn, TensorFlow(keras), Matplotlib, Pandas, Numpy, yfinance, MetaTrader 5, Technical Analysis, ...

Github: <https://github.com/drKopp/Trading-algo>

Another AI and web development project

- <https://github.com/drKopp>

ACADEMIC BACKGROUND

Master's in Data Science and Artificial Intelligence
University of Fianarantsoa

📅 11/2023 - Present 📍 EMIT, Andrainjato

Bachelor's in Internet and Intranet Application Development
University of Fianarantsoa

📅 07/2019 - 09/2023 📍 EMIT, Andrainjato

BEST ACHIEVEMENT

Bot de trading prédictif visant à réduire les risques financiers

Designed and trained a machine learning model integrated into an autonomous trading bot, deployed in a sandbox environment for optimization and loss reduction.

SKILLS

Professional Skills

- * Web Development (Internet & Intranet)
- * Artificial Intelligence
- * Data Science and Data Analysis
- * Machine Learning and Predictive Modeling
- * Integration of AI Solutions into Digital Systems

Personal Skills

- * Analytical Thinking and Problem Solving
- * Continuous Learning and Technological Curiosity
- * Autonomy and Project Management
- * Creativity and Innovation
- * Adaptability and Rigor

COMPÉTITION UNIVERSITAIRE

2024 Interuniversity Hackathon - HIU24

Participation in a 2024 interuniversity hackathon, solving CTF challenges focused on networking.

ORG.: TECHZARA

RANK: 4th Place

PASSION

Machine Learning

Passion for exploring machine learning algorithms and applying them in real-world projects.

Technological Innovation

Strong interest in emerging technologies, particularly deep learning and neural networks.

LANGUES

Malagasy

Native Language



French

Proficient



English

Advanced

