

Rova Isaia ANDRIAMAMY

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Antananarivo, Analamanga 101, Madagascar

OBJECTIVE

I am passionate about artificial intelligence, data science, and data analysis. I enjoy using machine learning and deep learning to solve real problems with data. My goal is to work on projects that have a positive impact and can be applied in the real world. I want to help build simple and useful solutions in fields such as astrophysics, healthcare, agriculture, and other areas where data can make a difference.

EDUCATION

• University of Antananrivo

MASTER II

- Astronomy and Astrophysics

2024 - 2025

Antananarivo, Madagascar

• INSI University of Ambanidia

MASTER I

- Artificial Intelligence

2024 - 2025

Antananarivo, Madagascar

• University of Antananrivo

BACHELOR'S DEGREE

- Physics

2022 - 2023

Antananrivo, Madagascar

EXPERIENCE

• Food Price Forecasting in Madagascar

Deep learning, TensorFlow, RNN, LSTM, GRU, Web Scraping

2024 - 2025

M1 Project

- Collected, cleaned, and organized market price data.

- Performed data preprocessing and time-series feature engineering.

- Designed, trained, and evaluated RNN-based models (LSTM, GRU) for short-term price forecasting.

- Built dashboard for real-time predictions using Flask and React.

July 2025 - Mars 2026

South Africa, Kenya

• DARA Basic Training

Computer Training, Practical Optical and Radio Astronomy Training

- Familiarity with Bash terminal and Python libraries.

- Performed data reduction and analysis using Python programming.

- Learned observational techniques in optical and radio astronomy.

- Conducted hands-on telescope operations and data acquisition.

May 2025 - July 2025

Remote

• BRICS Astronomy

Data Analysis

- Astrophysical data analysis, Python programming, and Machine learning applications in astronomy.

- Data cleaning, Python libraries

- Conducted an in-depth study of project.

- Developed machine learning models to predict dark matter halo masses.

• Hack4dev

Deep learning : Developed a CNN model for image classification tasks

April 7th -10th, 2025

Antananarivo, Madagascar

- Analyzed diverse image types for classification tasks.

- Applied preprocessing techniques.

- Tested different model architectures.

- Optimized model parameters.

- Top 20 internationally in competitive evaluation.

PROJECTS

• Stellar-to-Halo Mass Relation Analysis

Python, scikit-learn, Pandas, Web Scraping

2024-2025

- Collected and cleaned cosmological data from the IllustrisTNG platform.

- Analyzed correlations between variables across different redshifts.

- Developing ML models to predict halo mass from stellar properties.

SKILLS

- **Programming Languages :** Python, C, R, MATLAB, HTML, CSS
- **Machine Learning & Deep Learning :** scikit-learn (Linear Regression, Random Forest, Gradient Boosting); PyTorch, TensorFlow (CNN, LSTM, RNN, objects Detection)
- **Data Analysis & Visualization :** Pandas, NumPy, Matplotlib, Seaborn, Jupyter
- **Frameworks & Cloud Technologies :** Flask, React, AWS
- **Database & Tools :** SQL, Excel, Unix/Linux, Git
- **Scientific Domains :** Artificial Intelligence, Astronomy, Astrophysics, Cosmological Data Analysis

CERTIFICATIONS

• English british pronunciation practice	<i>January 2026</i>
• Mathematical Logic	<i>December 2025</i>
• DARA Computer Training	<i>August 2025</i>
• Brics Astronomy	<i>July 2025</i>
• American English Speaking Practice	<i>May 2025</i>
• Hack4dev	<i>April 2025</i>

MEMBERSHIPS

- **Malagasy Astronomical Society (MASS)**
- **Benty Fields Astronomy Research**
- **Sakay Young Students Association (AJES)**
- **University of Antananarivo Sports and Cultural Association (ASCUT)**

ADDITIONAL INFORMATION

Languages: Malagasy (Native), French (Intermediate), English (Intermediate)

Interests: Data science, Data Analysis, Radio Astronomy

REFERENCES

1. Reference Person 1

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2. Reference Person 2

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