

# Rova Isaia ANDRIAMAMY

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 rova-isaia-andriamamy |  RovaIsaia |  RovaIsaia

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 Antananarivo** 2024 - 2025  
*MASTER II* Antananarivo, Madagascar
  - Astronomy and Astrophysics
- **INSI University of Ambanidia** 2024 - 2025  
*MASTER I* Antananarivo, Madagascar
  - Artificial Intelligence
- **University of Antananarivo** 2022 - 2023  
*BACHELOR'S DEGREE* Antananarivo, Madagascar
  - Physics

## EXPERIENCE

- **Food Price Forecasting in Madagascar**  2024 - 2025  
*Deep learning, TensorFlow, RNN, LSTM, GRU, Web Scraping* 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.
- **DARA Basic Training**  July 2025 - Mars 2026  
*Computer Training, Practical Optical and Radio Astronomy Training* South Africa, Kenya
  - 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.
- **BRICS Astronomy**  May 2025 - July 2025  
*Data Analysis* Remote
  - 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**  April 7th -10th, 2025  
*Deep learning : Developed a CNN model for image classification tasks* 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** 2024-2025  
*Python, scikit-learn, Pandas, Web Scraping*
  - 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

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- **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

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

## MEMBERSHIPS

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

## ADDITIONAL INFORMATION

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

**Interests:** Data science, Data Analysis, Radio Astronomy

## REFERENCES

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### 1. Reference Person 1

Prof. Solohery RANDRIAMAMPANDRY  
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### 2. Reference Person 2

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