

Rova Isaia ANDRIAMAMY

+261 37 45 151 26 | isaiaipix@gmail.com

 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

- **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 | 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

- 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

Prof. Solohery RANDRIAMAMPANDRY
Head of Astronomy and Astrophysics
Department of Physics, Faculty of Sciences
University of Antananarivo, Madagascar
Email: soloherymampionona@gmail.com
m.randriamampandry@univ-antananarivo.mg
Phone: +261 34 16 563 87

2. Reference Person 2

Dr. Toky H. Randriamampandry
Senior Lecturer in Astrophysics & Astronomy
Department of Physics, Faculty of Sciences
University of Antananarivo, Madagascar
Email: tokyherimandimby@gmail.com
Phone: +261 34 33 672 68