ANGELO ANDRIANANTENAINA

Machine Learning Engineer | Data Scientist

Fianarantsoa, Madagascar | +261-345-992-047 | a.angelo.mada@gmail.com

ABOUT ME

"Always eager to learn, collaborate, and turn complex data into impactful solutions."

Machine Learning Engineer and Backend Developer with a solid foundation in data science, software architecture, and the development of intelligent systems. Passionate about delivering end-to-end ML solutions — from data collection and preprocessing to model deployment as scalable APIs. My combined expertise in Python and Laravel allows me to deliver robust, production-ready systems with clean architecture and strong performance.
. Experienced in recommendation systems, chatbot development, ETL pipelines, and RESTful API integration. Eager to bring smart, data-driven products to life.

PROFESSIONAL EXPERIENCE :

Innov-It

AI & Backend Developer Intern | September 2024 - December 2024

- Built a hybrid product recommendation system (content-based + rule-based) for a web platform using Scikit-learn and Flask.
- Developed and deployed a rule-based chatbot for customer interaction using ChatterBot and Flask.
- Designed and documented REST APIs for integration with the frontend team.

Université de Fianarantsoa

Web Developer Intern | September 2023 - December 2023

- Developed a web application for event and archive management using Laravel.
- Designed a responsive user interface with Bootstrap, ensuring a smooth user experience.
- Optimized database queries and APIs to enhance performance and scalability.

KEY PROJECTS:

Salary Prediction API — End-to-End ML Pipeline

March 2025 | https://github.com/ANDRIANANTENAINA001Angelo/data-to-model-pipeline

Stack: Python, Scikit-Learn, Pandas, Flask, Swagger, CI/CD

- Built and deployed a salary prediction model trained on web-scraped job data (90% accuracy).
- Automated the pipeline: data scraping, preprocessing, training, API deployment (Flask).
- Exposed model via REST API with Swagger documentation.

Ticket Place — Laravel Ticketing System

October 2024 | https://github.com/ANDRIANANTENAINA001Angelo/ticket-place

Stack: Laravel 10, RESTful API, MySQL, Clean Architecture, Sanctum Auth, Swagger, Policy, GitHub

- Developed an event booking platform with role-based access (Laravel Policies).
- Integrated secure REST API with Laravel Sanctum + Swagger docs.

ChatterBot — Basic Conversational Assistant

March 2025 | https://github.com/ANDRIANANTENAINA001Angelo/ChatterBot

Stack: Python, Flask, ChatterBot, REST API, JSON, Clean Design, Basic NLP

- Designed a rule-based chatbot for demo/prototype purposes, served via Flask API.
- Focused on clean routing, modular design, and simple NLP rules.

Face Detector — Face Detection with OpenCV

July 2024 | https://github.com/ANDRIANANTENAINA001Angelo/face_detector

Stack: Python, Flask, OpenCV, Numpy, Jupyter Notebook, Image Processing

- Simple face detection system from image files using Python and face_recognition.
- Personal project for learning image processing techniques in Python.
- Minimal interface via Jupyter Notebook for quick demos and Computer Vision testing.
- Flask API setup for potential integration and remote access.

EDUCATION:

Master's Degree in Artificial Intelligence – Governance & Data Engineering
2024 – 2025 | École Nationale d'Informatique, Madagascar

Bachelor in Computer Science – Software Engineering & Databases
2020 – 2023 | École Nationale d'Informatique, Madagascar

SKILLS:

Languages :	Python, PHP, SQL, JavaScript
Data Science & ML:	Scikit-learn, Pandas, Numpy, PySpark, OpenCV, face_recognition
Web & Backend Dev:	Flask, FastAPI, Laravel, REST API, Swagger, CI/CD
Data & ETL:	Web Scraping (BeautifulSoup), ETL Pipelines, Data Cleaning
DB & Tools:	MySQL, PostgreSQL, MongoDB, SQlite, Git, GitHub
Visualization:	Matplotlib, Seaborn, Tableau, Streamlit
Deployment :	Docker, Render, LWS, AWS
Soft Skills:	Teamwork, Problem-Solving, Agile/Scrum