# Rafael Torres Nóbrega Gomes

Email: rafaeltorresng@gmail.com

**Github:** rafaeltorresng **Linkedin:** in/rafaeltng **Phone:** +55 81 98251-2792

#### **SUMMARY**

Computer Science undergraduate at the Federal University of Paraíba (UFPB), currently in the 3rd semester, exploring the realms of data science, software development and AI engineering. As an AI Researcher Intern at MGI Tech, I design and deploy machine learning solutions into production, driving process efficiency and automation across diverse domains. Proficient in Python, PyTorch, Flask, and data pipeline engineering, with successful projects in music recommendation, stock time series forecasting, and sentiment analysis. Proven leadership in fast-paced hackathons, delivering real-time prediction APIs and end-to-end ML pipelines.

## **EXPERIENCE**

**Treinee - Trilha** 08/2024 - 12/2024

Developed foundational skills in artificial intelligence, programming logic, and Python libraries (pandas, NumPy) and learned essential software development tools and best practices under mentorship. I participated the Trilha's Hackaton and led project (TARG) to build a stock-forecasting website (BBAS3), including time-series modeling, web scraping of news, and sentiment analysis(NLP).

#### **Volunteer Researcher - TRIL Lab**

12/2024 - 04/2025

Assisted in AI research projects, including data collection, preprocessing, and exploratory analysis, and the implementation of multi-agent systems, which was developed to create sales pipelines and automatise contact with targets. I learned some machine learning techniques and mastered the use of CrewAI.

AI Researcher Intern - MGI Tech (in partnership with the labs LASER and LAGID/UFPB) 04/2025 - present Implementing AI models into company systems, collaborating with engineering teams to integrate machine learning solutions into production environments and acting across multiple domains as a Data Scientist and Software Engineer, contributing to system architecture, data engineering, and model deployment.

## **RELEVANT PROJECTS**

#### **Blonded AI (Personal Project)**

Developed a music recommendation system using audio embeddings and PCA, based on Spotify data and built a feature extraction pipeline, similarity computation, and personalized recommendation engine.

#### TARG: Time-series Analysis Report Generator (Hackathon project during the TRILHA Program)

Created a website for predicting stock prices for the next 5 days using time series model (LSTM), performed web scraping of news and applied sentiment analysis (positive, neutral, negative) to each article, maintaining a historical database of stock quotes since 2010.

#### LAGID/UFPB GPT API Workshop

Conducted a workshop on the use of the GPT API, covering authentication, endpoint calls, and prompting strategies, implementing a Database-Integrated Chatbot project that returns user-requested insights about the data and generates graphs and dashboards based on the data.

#### **EDUCATION**

# **CERTIFICATE**

## **Cambridge Certificate in Advanced English**

12/2022

(CAE), CEFR B2 level, Grade B Student at the Level B2 (Upper-intermediate proficiency in English) Overall Cambridge English Scale score: 175 (198 for speaking)

# **SKILLS**

Languages: Native Portuguese, Fluent English.

Tools: Python, C, Java, R.

**Interests:** Machine Learning, Data Science, NLP, LLMs, Software Engineering, Applications of Artificial Intelligence in Music.

ML Techniques: Time Series Forecasting, Embeddings, PCA, Neural Networks, NLP.