Rafael Torres Nóbrega Gomes

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SUMMARY

Computer Science student at UFPB with experience in **Software Engineering, AI/ML Engineering,** and **Data Science**. Skilled in **scalable web applications, Machine Learning systems,** and **full-stack development.** Strong foundation in **system architecture** and **design patterns**, with a focus on building reliable, **AI-driven solutions** that deliver **real-world value and scalability.**

EXPERIENCE

SeverinoBiu | *Software Engineer* — **Nov 2025 - Present**
- Building and maintaining a production web application as a full-stack engineer, focusing on reliability and performance.

MGI Tech (partnership with LAGID/UFPB) | *Software Engineering Intern* — **Apr 2025 - Oct 2025**
- Developed a **Retrieval-Augmented Generation (RAG)** system enabling **LLM**s to answer client queries using product manuals as context, leading to improved client satisfaction.
- Implemented **LLM**-powered **data analysis workflows**, generating numerical indicators and insights in an interactive dashboard, improving decision-making speed.
- Contributed to **system architecture, data engineering, and ML deployment,** improving scalability and reliability.

Zoox Smart Data (partnership with TRIL Lab) | *Data Scientist* — **Dec 2024 - Apr 2025**
- Performed **data preparation, exploratory analysis, and prototyping** for AI research initiatives, leading to improved model accuracy and insights.
- Developed a **multi-agent system** for sales automation (**CrewAI**), enhancing sales efficiency and reducing manual workload.

PROJECTS

Blonded AI – Music Recommendation System | Github
- Built a **Flask**-based recommendation engine using **embeddings, PCA**, and **ChromaDB** with **cosine similarity** for fast vector-based similarity matching, featuring real-time **Spotify API** integration and a modern **Vue.js** interface.

GuardAzul – Mobile Environmental Protection App (Top-4 Finalist, Paraíba Statewide Hackathon) | Github
- Built a **React Native + FastAPI + PostgreSQL** app with **Computer Vision** validation for georeferenced environmental reports and automated pollution detection, featuring an **AI-powered chatbot** for coastal ecosystem education.

EXTRACURRICULAR EXPERIENCE

TAIL (Technology and Artificial Intelligence League) | *Student Member* — **Jun 2025 - Present**
- Advanced skills in **Machine Learning, Deep Learning, and Data Science** by building collaborative AI projects.
- Engaged in research and development activities within the first AI student league in Northeast Brazil.

LAGID/UFPB | *LLM API Workshop* — **Apr 2025**
- Conducted a workshop on LLM API usage: authentication, prompting, chatbot deployment, and extracting insights from data for > 70 students.

EDUCATION

Federal University of Paraíba (UFPB) | *Bachelor of Computer Science* — **2024 - 2027**

CERTIFICATIONS

- Cambridge Certificate in Advanced English (CAE): 01/2023
  CEFR B2 – Overall score: 175/220 (198 in Speaking)

SKILLS

- **Languages (Programming):** Python, TypeScript, C, Java, R, JavaScript
- **AI & Systems:** LLMs, RAG, Embeddings, Asynchronous Systems, Streaming UX, Model Deployment, Computer Vision, Machine Learning
- **Frameworks & Tools:** NestJS, PostgreSQL, MongoDB, FastAPI, React, Flask, Git, Docker
- **Languages:** Portuguese (Native), English (Fluent, CAE Certified)