Rafael Arias Navarro

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PROFESSIONAL PROFILE

Full Stack Developer and Python AI Engineer with a strong focus on Artificial Intelligence, Backend Automation and Frontend Integration. Hands-on experience building solutions using LLMs (LangChain, OpenAI API), web scraping, semantic search (RAG), API design, and scalable web development. Proven track record in diverse sectors including finance, healthcare, education, and SEO automation. With a collaborative spirit and a passion for problem-solving through smart engineering.

TECHNICAL SKILLS

LangChain | OpenAI API | RAG pipelines | LLMs | Python | Flask | Django | PostgreSQL | React.js | Javascript | HTML5 | Bootstrap | Git | Github | Docker | BeautifulSoup | Web Scraping

PROJECTS

LLM-Powered PDF Assistant

- Built an RAG-based Q&A system using LangChain, FAISS, and OpenAI.
- Integrated chunking and embedding pipelines in Streamlit for querying scientific PDFs.
- Enabled high-accuracy natural language document search and retrieval.

Personal AI Assistant Chatbot

- Built a context-aware AI assistant capable of retrieving structured data from PDFs and analyzing LinkedIn insights.
- Integrated OpenAI API with prompt engineering to improve chatbot responses.
- Automated social media data extraction using Selenium and web scraping.

SEO Automation Platform

- Django + AI Clustering + Web Scraping
- Created an automated tool for improving search visibility and managing internal linking strategies

Bold Finance - Business Management System 2

- Developed and maintained expense, inventory, and cost control system for enterprise use.
- Refactor existing code and resolve bugs to improve system performance and maintainability.
- Applied scalable design principles and best practices for frontend/backend collaboration.

Healthcare Web Platform (IPS - Colombia)

- Managed backend logic with raw PHP for CRUD operations.
- Ensured data integrity for beneficiaries, relatives, and alert systems.
- Improved maintainability of legacy systems through refactoring.

Academic Schedule Generator with AI and OR-Tools, On development.

- Engineered the backend with Django of an internal platform for a local university that automates the generation of academic schedules.
- A module for bulk importing from .xlsx files and automatically cleaning columns with special characters.
- Optimization model with OR-Tools (CP-SAT Solver) to generate feasible schedule combinations (Prepared to receive constraints).

PROFESSIONAL EXPERIENCE

Full Stack Developer, Freelance

04/2025 - present

- Maintained a web platform for a Colombian health services provider (IPS) using native PHP and JavaScript.
- Improved front-end synchronization and optimizing backend logic for real-time emergency alerts.

Full Stack Developer, DevLabs

01/2025 - 05/2025

- Maintained and enhanced a multi-branch expense management platform.
- Improved maintainability, documentation, and system scalability.

Python AI Engineer, 4Geeks Academy 🖸

09/2024 - 11/2024

- Built AI-powered SEO automation platform using Python, Django, Redis, and web scraping tools.
- Implemented content clustering and OpenAI-based automation pipelines.
- Collaborated on React/TypeScript front end.

Account Integration Consultant, Freelance

2020 - present

- Automated account onboarding flows across payment and streaming services.
- Developed agile processes for account creation, platform integration, and payment processing.

• Provided technical consulting for streaming hardware/software optimization.

Customer Service Representative, Sutherland

• Exceeded performance benchmarks and contributed to customer experience optimization across international teams.

EDUCATION

Diplomado en Inteligencia Artificial, Universidad Libre

2025

Full Stack Software Developer, 4Geeks Academy

07/2023 - 05/2024 | Remote

Accountant, Universidad del Atlántico

2014 – 2022 | Barranquilla, Colombia



Spanish English

Native Professional Proficiency