

JOSE ALEXANDER RIOS TRESPALACIOS

SOFTWARE DEVELOPER | PYTHON DEVELOPER | TELECOMMUNICATION ENGINEER

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PROFESSIONAL PROFILE

Software Developer with a Telecommunications Engineering background and strong expertise in Python backend development, systems integration, and automation. Experienced in designing RESTful and asynchronous APIs using Django REST Framework, Flask, Celery, RabbitMQ, and Redis, as well as deploying containerized services with Docker on Linux and Windows servers. Proven ability to integrate complex systems through APIs, ETL pipelines, and message queues in enterprise and financial contexts, making informed technical decisions regarding architecture, performance, and reliability. Additional experience in full-stack development with React.js, backend systems in C#/NET, relational databases (PostgreSQL, SQL Server), and cloud environments on AWS.

EDUCATION

Telecommunications Engineering | 2016 – 2025

Universidad de Medellín

Emphasis in Data Science and Software Development

PROFESSIONAL EXPERIENCE

Software Developer

Medellín, Colombia

August 2024 – Present

Lambda Analytics

One of the most impactful projects has been the automation of data extraction processes from 12 different banks, using bots to collect financial data. This information is processed through an ETL pipeline that cross-references third-party data and automatically generates accounting entries in SAP. I've also built a web-based purchase order system, and I'm currently working on a data consolidation project involving international banks for Banistmo, including automated reconciliation and accounting entries. I have designed and developed asynchronous APIs using message queues (MQ) to integrate AI agent tools and other enterprise systems, implementing event-driven architectures for scalable and reliable communication. These services are fully containerized with Docker and deployed across AWS cloud environments as well as on-premise (interserver) infrastructure, running on both Linux and Windows servers, with automated deployment pipelines. Key technologies used: Python, Docker, Node, React, AWS, RabbitMQ, Redis, others.

Enginer Inter

Medellín, Colombia

Bancolombia

January 2024 – July 2024

I completed an internship at Bancolombia (International Trade Division), where I automated the manual process of uploading employee productivity data to an internal platform, reducing a two-hour task to just a few minutes—freeing up operational capacity and minimizing human error. I also developed a new module in the internal tool “Any” that allows managers to monitor collaborator performance, track errors, and visualize statistical insights at a departmental level. Additionally, I automated the daily generation and delivery of consolidated remittance reports using an ETL pipeline integrated with scheduled email dispatch. Key technologies used:

- Net Developer - ASP.NET MVC and Layered architecture, C#, SQL
- Bank process automation, developer. Automate the monitoring.

Academic Assistant

Universidad de Medellín

Medellín, Colombia

- Development of machine learning processes in Python
- Digital holographic images applying image processing
- Convolutional neural network architecture with Python

August 2023 – December 2023

SKILLS

• Python	• Java	• React Js	• Django
• Docker	• SQL	• Machine Learning	• AWS

AWARDS AND CERTIFICATIONS

- HACKATHON DATA SCIENCE - FIRST PLACE: «CardioVigilant_AI» - Inst Universitaria Pascual Bravo Y Ruta N
- Cisco CCNA 1 y 2, Machine Learning with Python (IBM), Python for Data Science (IBM)

LANGUAGES

Spanish: Native

English: Intermediate (B2)

Latin: Basic (A2)