

# Carlos Daniel Agamez Palomino

Systems and Computing Engineer | AI & Full Stack Developer

Cartagena, Colombia • oruz2019@gmail.com • 301 7450991 • www.carlosagamez.dev  
linkedin.com/in/carlos-agamez • github.com/carlosDA\_C2020

## Education

---

### Universidad Tecnológica de Bolívar (UTB)

*Bachelor of Science in Engineering in Systems and Computing Engineering*

*Cartagena, Colombia*

*Jan 2020 – Oct 2025*

## Experience

---

### Software & Artificial Intelligence Developer

*Cotecmar*

*Cartagena, Colombia*

*Sept 2025 – present*

- Designed and developed the **Intecmar AI** platform, integrating microservices with FastAPI and Celery.
- Implemented a Technological Surveillance Agent using LangChain, LangGraph, and Google Gemini Pro.
- Developed a RAG (Retrieval-Augmented Generation) system with ChromaDB for technical document analysis.
- Automated layout and generation processes for interactive digital magazines.
- Orchestrated infrastructure using Docker Compose, PostgreSQL, Redis, and MinIO.

### HRBP Intern (Human Resources Business Partner)

*Tenaris TuboCaribe*

*Cartagena, Colombia*

*Jan 2025 – July 2025*

- Designed and developed Power Apps applications to automate HR operational workflows.
- Implemented ETL processes for data consolidation and transformation from various internal sources.
- Performed data analysis using Python and Power BI to support strategic decision-making through interactive visualizations.

### Programming and Artificial Intelligence Tutor

*Universidad Tecnológica de Bolívar (UTB Talento Tech)*

*Cartagena, Colombia*

*Sept 2024 – Nov 2024*

- Provided personalized technical and academic tutoring to students on core programming concepts.
- Managed and supervised technical laboratories and resolved development environment issues.

## Projects

---

### Intecmar AI Platform

*Sept 2025 – present*

Comprehensive solution for modernizing technological surveillance through intelligent agents.

- Distributed architecture based on the microservices orchestration pattern.
- Integration of academic APIs (Arxiv, Semantic Scholar) for automated scientific grounding.
- Automated generation of technical reports in Markdown and PDF with AI-generated visual support.

### BP Tools – Tenaris TuboCaribe

*Sept 2024 – Nov 2024*

Suite of technological tools to optimize Human Resources processes.

- Plant Entry Control: Power Platform system for personnel monitoring.
- Report Generator: Automation of overtime reports using Jupyter Notebooks and Power Automate.
- Leave and Medical Records Manager: Python script for bulk data loading into SAP.

## Skills

---

**Languages:** Python, C++, TypeScript, SQL

**Tech & Frameworks:** Django, Angular, FastAPI, HTML, CSS, REST Framework, LangChain, Celery

**Cloud & Tools:** Git, AWS, Azure, Docker, Ansible, Terraform, Power Platform, Hugging Face

**Databases:** PostgreSQL, MySQL, ChromaDB (Vectorial)

**Currently Learning:** Model Context Protocol (MCP), Prompt Engineering, Advanced RAG, IA Tools Integration with LLMs