



Marcos Canal López

Senior Software Engineer

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📄 Summary

Software Engineer with over 6 years of experience building enterprise-grade applications for major public administrations, including **RTVE**, the **Ministry of Labour**, and the regional governments of **Catalonia** and **Valencia**.

I specialize in **Java, Spring Boot, and Angular**, with a strong focus on **microservices architecture** using **Kafka and Docker**. Currently, I am developing the **ESF+ (European Social Fund)** platform for the Spanish Ministry of Labour.

I am a continuous learner at heart. Outside of my professional role, I build personal apps and tools to solve everyday challenges, leveraging these projects as a sandbox to master emerging technologies and diverse programming paradigms.

📦 Tech stack

Backend

JAVA, Spring Boot, Quarkus, JPA/Hibernate, JUnit, Mockito, Maven

Data bases

Oracle SQL, MongoDB, PostgreSQL, Liquibase

Cloud

AWS, Azure, Vercel

IA

Prompt Engineering, GitHub Copilot, Claude AI

Frontend

Angular, TypeScript, RxJS, React, Node.js

System Integration & Messaging

Kafka, APIs REST, Swagger/OpenAPI

DevOps

Git, Docker, OpenShift, SonarQube, CI/CD, Jira, Kubernetes, Jenkins

Development Methodologies

Agile/SCRUM, Gitflow, Code Review, OWASP, TDD

📁 Professional Experience

06/2025 – Present
Remoto

LAUDE technology

Senior Fullstack Software Engineer

ESF+ Platform (European Social Fund Plus) — Ministry of Labour and Social Economy

- **Design and implementation of REST APIs** using **Spring Boot and JPA** within a **dockerized microservices architecture** to manage the ESF+, the EU's primary instrument for employment and social inclusion in Spain.
- Developed **data validation systems**, standardized error handling, and **service contracts** to ensure seamless and reliable communication between platform components.
- Identified and remediated **security vulnerabilities** by applying **OWASP best practices**, hardening services to meet the Ministry's stringent security standards.
- Led the **continuous migration of Angular components** to the latest framework versions, refactoring legacy code to enhance maintainability and performance.
- Implemented comprehensive **unit testing with JUnit and Mockito**, ensuring code quality through **SonarQube** integration.
- Conducted **code reviews** and provided **technical mentorship** to junior developers.

05/2024 – 05/2025
Remoto

Indra

Senior Software Engineer

SIDER Project — Generalitat de Catalunya (Government of Catalonia)

- **Full-stack development** of microservices-based features for the Integrated Management System for Rural Development Grants, using **Java 17, Spring MVC, JPA, and Angular 17**.
- Utilized **MongoDB** as the primary non-relational database, implementing **optimized queries and document mapping** to significantly improve data access efficiency across the system.

CRIBA-T Project — Generalitat Valenciana (Government of Valencia)

- Implemented an **event-driven architecture** using **Apache Kafka and Quarkus**, including the creation of **Topics, message queues, connectors, and producers/consumers** for asynchronous processing of healthcare population data.
- Configured integration routes with **Apache Camel** to orchestrate message flows between services, connecting **Oracle databases with Kafka** using the **FHIR standard**, all deployed on **OpenShift**.
- Developed dynamic listings using the **FHIR API and searchParameters**, alongside complex queries for the **Business Intelligence** module (Reports, Dashboards, and population-level indicators).

03/2022 – 05/2024
Remoto

Inetum

Mid/Senior Fullstack Software Engineer

SGDR Project (Rights Management System) — RTVE (Spanish Public Radio and Television)

- **Sole Developer** responsible for the development and delivery of application versions for managing RTVE's program exploitation rights, using **Angular 15, Java 8, Spring MVC, and Oracle**.
- **Led the migration of legacy code** from JSP and jQuery to **Angular 15**, modernizing the user interface and significantly improving the overall user experience.
- Managed the **full software development lifecycle (SDLC)**: SCRUM estimation, development, testing, technical documentation, and application maintenance.

Junior Full-stack Developer

CIP, SPA, SIP, RTVA Projects — RTVE

- Performed **full-stack development** across four media production management applications for **RTVE** and **RTVA** (Andalusian Public Radio and Television), working with **Angular (7/15), Java 8, Spring MVC, JPA, and Oracle**.
- Implemented **end-to-end features**, including Angular components, REST controllers, JPA entities, and **SQL stored procedures**, covering everything from the frontend to the database layer.
- Developed automated **Excel and PDF reporting** using **JasperReports**, integrated into the audiovisual production business workflows.

02/2021 – 02/2022

Seresco S.A

Junior Fullstack Developer

- **Full-stack development** of specialized applications for the agricultural sector, including **Xeaga** (crop monitoring for the Xunta de Galicia) and **Agropres** (field work logs with a Spring-based backend for Android devices), utilizing **Spring, Hibernate, JPA, and PrimeFaces**.
- Successfully integrated the **John Deere API** for the **Cultiva platform**, leading the security migration from **OAuth 1.0 to OAuth 2.0**.

Personal Projects

Alza — Investment Portfolio Tracker

React + Vite • Supabase (PostgreSQL) • Vercel

Developed a **personal web application** for real-time investment tracking, featuring **interactive charts**, asset search for stocks and cryptocurrencies (including company logos), and live portfolio snapshots.

Built with a modern tech stack and **deployed to production on Vercel**, featuring a fully automated **CI/CD pipeline** integrated with GitHub for seamless updates.

HealthLife — Meal Planner & Nutrition Tracker

Next.js • Supabase • Claude API • Vercel

Developed a specialized **diet planning application** featuring automatic **macro-nutrient calculation** (calories, protein, etc.) based on user-defined goals.

Built an intelligent meal selector that adapts nutrition plans based on **training intensity** (Strength, Cardio, or Rest days).

Integrated a smart food search engine utilizing **AI-driven nutritional estimation** via the **Claude API** (Anthropic) for high-accuracy food tracking and parsing.

Education

2023 – 2024	Máster Full Stack Development UNIR — Universidad Internacional de La Rioja
2016 – 2021	Grado en Ingeniería Informática del Software Universidad de Oviedo

Languages

Español Native	● ● ● ● ●	Inglés B1	● ● ● ● ●
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Certificates

AWS Cloud Practitioner