Roberto Gallego Barbarán

Junior Backend Engineer (Go/Python) | LLM Agents
Málaga, Spain | Remote (CET)
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PROFESSIONAL SUMMARY

Junior backend engineer (Go/Python) who builds LLM agents, currently an AI & Automation intern at DEKRA and finishing a BSc in Software Engineering (University of Málaga, 2027). Build LLM agents in Python (LangChain, LangGraph, MCP) and backend services in Go and Java; Canton ledger integrations in Go cover the distributed-systems side. 4th place in the Betsson challenge at Hackathon UMA 2026 (300+ students).

TECHNICAL SKILLS

Languages: Python, Go, Java 17, TypeScript, SQL.
Applied AI: LangChain, LangGraph, MCP, smolagents.
Backend & APIs: Spring Boot, REST, gRPC.
Databases: MariaDB/MySQL.
Cloud & infrastructure: Docker, Docker Compose, Linux.
Tools & practices: Git, GitHub Actions (CI/CD), pytest, Playwright, JUnit, Mockito.

PROFESSIONAL EXPERIENCE

DEKRA Sept. 2026 – Mar. 2027
AI & Automation Engineer Intern Málaga, Spain

- Build AI agents in Python with LangChain and LangGraph to automate the analysis of laboratory results.
- Connect LLMs to external tools through MCP and orchestrate decision flows with LangGraph state graphs.

IOBuilders (University-Industry Collaboration) May 2026 – Jul. 2026
Backend Developer (Canton/DLT) Málaga, Spain

- Built the Go integration layer between the REST backend and the Canton Ledger API v2 (team of three): a shared client package reused by the API and the event listener, using gRPC with an HTTP JSON API fallback.
- Delivered Delivery-versus-Payment (DvP) settlement end to end (create, execute, cancel and withdraw endpoints, UI and API docs) on a three-participant Dockerized Canton network.
- Added real-time ledger monitoring with a Go listener and OpenTelemetry observability (OTLP collector, .NET Aspire dashboard), and fixed a race condition in contract-factory initialization.

PROJECTS

Cava Agent | *Python, smolagents, Gradio, pytest, GitHub Actions* | GitHub 2026

- Turned a fixed LLM pipeline into a ReAct agent (smolagents) that picks its own tools (Yahoo Finance, SMA50/SMA200 trend, news, weather) with a swappable LLM (Groq, Gemini).
- CI/CD in GitHub Actions: ruff and pytest on Python 3.10–3.12, deploying the Gradio demo to Hugging Face Spaces after CI passes; daily Telegram bulletin via cron.

Intelligent Game Validation | *TypeScript, Node.js, Playwright, OCR, GitHub Actions* | GitHub 2026

- 4th place in the Betsson challenge, one of several at Hackathon UMA 2026 (300+ students); wrote all the code of the team's TypeScript/Playwright tool that validates casino games in cross-origin canvas iframes as the player sees them, with no DOM access.
- Built a computer-vision pipeline (pixelmatch, template matching, tesseract.js OCR) cross-checked with provider traffic; CI in GitHub Actions with 42 unit tests and a fault-injection negative control.

Bancosol Campaigns | *Java 17, Spring Boot, JPA, Spring Security, JWT, MariaDB* | GitHub 2026

- Implemented the Captain role module of a team Spring Boot web app: dashboard for assigned stores, shifts and volunteers, incident registration, and access limited to each user's own data with Spring Security and JWT.

EDUCATION

University of Málaga 2023 – 2027
BSc in Software Engineering Málaga, Spain

University Extension in Blockchain Technologies (490h) Feb. 2026 – Jun. 2026
University of Málaga (UMA) Málaga, Spain

- Distributed systems, smart contracts (Solidity, Daml), decentralized infrastructure (Canton, gRPC) and blockchain audit fundamentals.

LANGUAGES

Spanish (native), English (C1, Cambridge).