

Javier Costa

Tech Lead focused on product architecture, backend systems and practical AI.

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Summary

I help teams turn unclear product needs into software they can ship, operate and evolve.

Expertise

Product architecture

Turn ambiguous requirements into technical direction, clear boundaries and delivery plans.

Backend systems

Design and evolve APIs, services and data flows that remain understandable as products grow.

Reliability

Improve observability, failure handling and the parts of a system that cause trouble in production.

Practical AI

Use LLMs and automation when they remove real work or unlock a useful product capability.

Projects

Healthcare workflow automation

A healthcare operations team relied on spreadsheets and email for a fragile manual process. Designed and developed the replacement platform end to end, including its architecture, AWS infrastructure and data model, giving the team a workflow that was easier to operate and extend.

Consent management browser extension

Led a five-person team evolving a consent-management extension under CSP, storage and cross-browser constraints. Restructured the product around clearer boundaries while keeping delivery moving under changing platform requirements.

Reliability in a high-usage crawling product

Led cross-cutting changes to architecture, observability and failure handling in a crawling product used daily by thousands of customers, reducing customer-reported issues and making later product changes safer.

Experience

Tech Lead — Product Architecture, Reliability & AI Systems, Blue Trail Software August 2025 – Present
Led the technical evolution of a web crawling product used daily by thousands of customers.

- Improved reliability and reduced customer-reported issues through changes to architecture, observability, fault tolerance and execution consistency.
- Introduced AI-assisted engineering workflows for a lean team.

Tech Lead — Product Engineering & Browser Extension, Blue Trail Software November 2024 – August 2025

Led a five-person team evolving a consent-management browser extension from a limited tool into a more robust product ready for cross-browser expansion.

- Defined an architecture that balanced platform constraints, delivery speed and long-term maintainability.
- Translated ambiguous business needs into sustainable technical decisions.

Tech Lead & Solutions Architect, Blue Trail Software

April 2023 – October 2024

Designed and developed a healthcare automation platform that replaced manual spreadsheet- and email-based operations.

- Owned architecture, AWS infrastructure, data modelling and technical decisions end to end.
- Worked directly with stakeholders and led the development team through delivery.

Senior Full Stack Engineer, Blue Trail Software

March 2021 – April 2023

Helped restructure a monolithic platform into roughly ten services.

- Introduced TypeScript and NestJS to standardize backend development and developed shared libraries that reduced duplication across projects.
- Mentored junior engineers and launched weekly Tech Talks to strengthen knowledge sharing.

Full Stack Engineer — R&D, ITI — Instituto Tecnológico de Informática

February 2018 – March 2021

Developed web applications and technical tools for national and European R&D projects across AI, IoT and blockchain.

- Worked across frontend and backend with Node.js, Python, Angular and Vue.
- Applied clean architecture practices and Docker-based workflows in projects with evolving requirements.

Education

Universitat Politècnica de València, MSc in Software Engineering, Formal Methods and Information Systems · BSc in Informatics Engineering

2014–2020

Skills

Focus: Product architecture, backend systems, reliability, practical AI

Technologies: TypeScript, NestJS, Node.js, Python, Angular, Vue, AWS, Docker

Engineering: Service architecture, APIs, observability, fault tolerance, data modelling, clean architecture