Francisco Medrano

AI Engineer · Full Stack · Internal Solutions Delivery

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Today I coordinate the delivery of internal solutions for different business areas and automate processes with AI tools. I come from development: front end with Angular in consulting, and full stack development and R&D at university.

EXPERIENCE

Mar 2025 – present

INDRA ATM — Internal Solutions Delivery · Senior Engineer – Grade I

Spain · Delivery cycle: V-model

ACTIVITIES

- Coordination of the delivery of internal solutions for different business areas.
- Facilitation and alignment of technical activities across multidisciplinary teams.
- Analysis and translation of business needs into functional and technical requirements.
- Management of the delivery cycle, ensuring quality, deadlines and defined objectives.
- Identification and mitigation of project risks, dependencies and impediments.
- Stakeholder coordination and management of communication between technical and business areas.
- Tracking of KPIs, service metrics and the evolution of the deployed solutions.
- Automation of internal processes and continuous improvement through the integration of AI tools (Copilot).

Technologies: Jira, Power BI, DOORS, DocsDB, Change, Build Plan, Microsoft Office (Excel, Word, PowerPoint), Confluence, OBS, SCANNER, Copilot.

Jan 2023 – Mar 2025

Capitole Consulting — Expert Software Engineer (External Consultant)

Spain

ACHIEVEMENTS

- Redesigned the route system of the packages and dynamic components of an Angular library after diagnosing that they prevented the final bundle from being built; all the packaging problems were resolved.
- Recovered a large part of the unit tests that had stopped working through successive Angular version migrations.
- Offered to set up the E2E tests: proposed a SMART classification of the priority requirements, got the main interactions approved by their owner and implemented the E2E test for «add points».

ACTIVITIES

- Front-end development of a 2D viewer specialised in the aerospace sector, with responsive interfaces and a reusable component architecture.
- Identification and definition of requirements from client needs.
- Integration and communication with REST APIs for data management.
- Design of the global state and effects architecture using NgRx.
- Technical alignment with the UX, engineering, business and testing teams for product decision-making.
- Coordination with the Back End and UX/UI teams for sprint planning by creating, estimating and assigning tasks in Jira.
- Definition and coordination of unit, regression and E2E tests.

Technologies: Angular, TypeScript, JavaScript, HTML, CSS, NgRx (Store, Effects), RxJS, Jira, Bitbucket, npm, Git, ng-packagr, Lodash, Proj4, OpenLayers, Java, Spring Boot, Figma, Copilot.

Sept 2018 – Dec 2022

Carlos III University of Madrid (UC3M) — R&D Software Engineer

Spain

PROJECTS

- **Book lending system.** Role: project planning, full stack development and data analysis. Functional requirements gathering. Annual project planning. Design and implementation of a REST API communication protocol. Design, implementation and maintenance of a database. Statistical analysis for report generation. Deployment from development to production.
- **PlayMeAudio.** Audio description generation system. Role: task planning and full stack development. Design and implementation of tools for transcribers and audio describers. Design and implementation of a microservices architecture and REST API communication protocols.
- **ShowMeText.** Automatic transcription, dubbing and subtitling platform. Role: full stack development and research into new technologies. Research and implementation of solutions for audio description and real-time automatic subtitling of television programmes, films, documentaries, deferred interviews and interviews. Design of functional prototypes for television. Implementation of APIs and microservices. Deployment from development to production.

Technologies: AngularJS, JavaScript, jQuery, CSS3, Bootstrap, PHP, MySQL, Angular, npm, TypeScript, SASS, Node.js, Flask, Python, Java, React.

EXPERIENCE (CONTINUED)

2019

Independent web development — Project planner, Full Stack developer

Venezuela

ACTIVITIES

- Web design and implementation.
- Development of the donation system for payments.
- Integration of payment links.

Technologies: Angular, JavaScript, jQuery, SASS, PHP, MySQL, Stripe.

2017

Freelance — Full Stack developer

Venezuela

ACTIVITIES

- Design and implementation of business websites.
- Implementation and customisation of websites using WordPress, Shopify and other CMSs.

Technologies: PHP, MySQL, JavaScript, Bootstrap, WordPress, Shopify, Stripe, Git.

2016

ISCAR Ground Service Corp — Systems analyst and developer

Venezuela

ACTIVITIES

- Program development.
- Technical support for computer equipment.
- Installation and maintenance of office networks.
- Maintenance of time-clock software.
- Installation of Ubuntu and Windows Server.
- Development of microservices and scripts.

Technologies: HTML, jQuery, CSS, PHP, Java.

2012 – 2015

Cooperativa La Cascada — Systems analyst

Venezuela

ACTIVITIES

- Installation and control of servers.
- Maintenance of computer systems in offices.
- Office network installation.
- Maintenance of servers running Windows Server.
- Licence control and renewal.

Technologies: Windows, Windows Server, TCP/IP, HTTP.

2011 – 2012

Petropiar S.A

Internship and degree thesis: full stack development from start to finish (planning, development and delivery)

Venezuela

ACTIVITIES

- Development of automated web-based software for the maintenance of a coke conveyor belt.
- Field research.
- Gathering of functional requirements and of the problem to be solved.
- Study based on UML.
- Design and implementation of the planning website.

Technologies: HTML, CSS, JavaScript, jQuery, PHP, MySQL, UML, MVC.

PERSONAL INITIATIVE

Growing into an AI Software Engineer

AI tools: Claude (Claude Code).

> Goal in progress: take 15 projects to production.

- **This site.** In production. code: fmmedranov-web
- **GDPR Agents.** Public code. code: rgpd-agents-dev
- **LangChain and LangGraph demos.** Public code. code: langchain-langgraph-agentes

EDUCATION

2018 – 2019

University Master's Degree in Computer Science and Technology

Carlos III University of Madrid (UC3M)

2006 – 2015

Computer Engineering

University of Oriente (UDO)

2011

TSU (academic recognition)

IUTSO