

Nicolás Barceló Lozano

Barcelona, Spain · <https://www.linkedin.com/in/ferreret/> · ferreret@gmail.com

Senior Data Scientist & Software Engineer with 25+ years of experience designing and implementing high-impact solutions across enterprise systems, document management, and process automation.

*Currently focused on **AI Agents, LLM orchestration, and intelligent automation**, combining a strong foundation in **.NET development** with expertise in **Python, NLP, and Generative AI**.*

Passionate about rapidly prototyping, testing, and scaling AI systems that enhance decision-making, optimize workflows, and deliver measurable business impact.

PROFESSIONAL EXPERIENCE

Tecnomedia Sistemas

Data and Documentation Technology Specialist

Barcelona, Spain

Nov 2002–Present

- **AI Agents & Generative AI**
 - Built and deployed AI agents for **decision automation** and enterprise system integration using **LangChain, LangGraph, CrewAI, n8n, and Azure AI**.
 - Integrated **generative AI models** through the **OpenAI SDK**, enabling rapid prototyping and reliable LLM-based automation.
 - Designed **multi-agent orchestration pipelines** for real-world use cases (document workflows, healthcare scheduling, CRM integrations).
- **Document & Data Solutions**
 - Led development of **document management applications** in .NET (C# / WPF / WinForms) and SQL Server.
 - Designed workflows for **digitization, indexing, OCR/ICR, and barcode recognition** in industrial and healthcare domains.
- **AI/ML Projects**
 - Developed **content-based text classification** (NLP) for knowledge management.
 - Directed a **quality prediction project** in the chemical industry using ML models.
- **Integration & Automation**
 - Implemented **RPA solutions** with C#, Python, and low-code (n8n).
 - Built REST APIs and integrated enterprise systems with **Minimal API** and **FastAPI**.

NexTReT

Programmer - Analyst Programmer

Barcelona, Spain

Dec 2000 - Nov 2002

- Developed enterprise applications in **VB6, SQL Server, ASP (VBScript)** for insurance and consultancy clients.
- Built HR and payroll management solutions with **PowerBuilder**.

Datasix Sistemas

Consultant

Barcelona, Spain

Oct 1999 - Dec 2000

- Designed and implemented **Business Intelligence solutions** (VBA, SQL Server, multidimensional analysis).
- Developed **Data Warehouses and Data Marts** and trained users in BI tools.

EDUCATION

UNIVERSITAT DE BARCELONA

Bachelor's Degree in Physics

Barcelona, Spain

Jun 1999

IEBS Business School

Master's in AI, data science & ML and Big Data

Barcelona, Spain

Nov 2022 - Sept 2023

CERTIFICATIONS

- Tensorflow developer certificate (2024)
- AZ-900 Azure Fundamentals
- AI-900 Azure AI Fundamentals
- PCEP-30-02 – Certified Entry-Level Python Programmer
- PCEP-31-03 – Certified Associate in Python

SKILLS

- **AI & ML:** LLMs, Prompt Engineering, AI Agents, LangChain, LangGraph, CrewAI, OpenAI SDK, NLP, RAG pipelines, Scikit-learn, TensorFlow, Streamlit, YOLO
 - **Software Development:** .NET (C#, VB.NET, WinForms, WPF), Python, JavaScript/TypeScript
 - **Data & Cloud:** SQL Server, NoSQL, Azure (Functions, AI, Synapse, Data Factory), Docker
 - **Automation:** RPA frameworks, n8n, API development (REST, OpenAPI)
 - **BI & Visualization:** Power BI, process mapping, human-in-the-loop systems
 - **Languages:** Native Spanish & Catalan; Professional English
-

