



Juan Manuel Aguirre Cebrián

AI / Machine Learning Engineer · Software Engineer

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PROFESSIONAL PROFILE

Software Engineer with 14 years of experience building backend systems, APIs, and data platforms, now applying that foundation to Artificial Intelligence after completing an MSc in Artificial Intelligence (UNIR, 2025). Hands-on experience designing deep learning pipelines (CNNs, TensorFlow, PyTorch) for medical image classification. Former Technical Lead of an 8-engineer Agile team delivering large-scale public-sector systems. Bilingual (Spanish/English), with a strong track record of translating complex technical work for non-technical stakeholders.

Deep Learning

TensorFlow / PyTorch

Backend & APIs

Technical Leadership

FEATURED PROJECT

2025

Cardiovascular Disease Prediction Using Deep Learning

MSc Thesis · Universidad Internacional de La Rioja (UNIR)

- Built a complete detection pipeline by designing the preprocessing, training, validation, and evaluation stages with TensorFlow and PyTorch on medical imaging data
- Applied CNN-based architectures and image-analysis techniques to support early cardiovascular disease detection
- Extended the work into CardiacAI (github.com/lrathor/cardiac-ai-platform), a cardiac MRI segmentation and biomarker-extraction platform (ACDC dataset), currently in progress

PROFESSIONAL EXPERIENCE

2023

PRESENT

Math & Science Teacher

Round Lake Area Schools

- Kept student outcomes on track by building recurring performance and attendance reporting, analyzing datasets across multiple grade levels
- Improved instructional decisions for staff and administrators by translating quantitative performance trends into clear, non-technical summaries

2020

2024

Senior Software Engineer & Technical Lead

Hiberus Tecnología · Public sector, Spain

- Delivered RACIMA, a mission-critical public-sector education platform serving tens of thousands of students, families, and educators, by leading and coordinating an 8-engineer Agile development team
- Increased the reliability of large-scale reporting by designing backend services and REST APIs in Python and Java for data extraction, transformation, and delivery
- Reduced data-integrity issues across high-volume databases by architecting validation and processing workflows spanning Oracle, PostgreSQL, and MySQL
- Sped up delivery cycles by owning system architecture and integration decisions end-to-end for the team

2017

2020

Senior Software Developer — Freelance / Consulting

Independent · Spain

- Enabled data-driven decisions for clients by designing and delivering BI dashboards and reporting tools using Python, SQL, and REST APIs
- Improved system performance and data availability by migrating legacy applications to scalable architectures
- Reduced rework and miscommunication by working directly with stakeholders to translate business requirements into technical solutions

2011
2017

Software Developer

Delirium Studios · Spain

- Shipped interactive software products by developing core features in C# and JavaScript within cross-functional teams
- Improved system reliability by focusing on performance optimization across delivered products

SKILLS

- **AI / Machine Learning:** Python · TensorFlow · PyTorch · Deep Learning · CNNs · Model Evaluation · Feature Engineering · Data Augmentation · Predictive Analytics · XGBoost
- **Data:** SQL · pandas · NumPy · Data Pipelines · Data Visualization (Tableau, Looker Studio) · Oracle · PostgreSQL · MySQL · MongoDB
- **Software Engineering:** Java · JavaScript / TypeScript · C# · REST APIs · Git · CI/CD · Agile / Scrum · System Architecture

EDUCATION

- 2025 MSc in Artificial Intelligence**
Universidad Internacional de La Rioja (UNIR)
- 2023 Higher Technician, Web Application Development**
CIPFPD, Spain
- 2017 BA (Hons) Computer Games Art**
Teesside University, UK
- 2016 HND Video Game Programming & Design**
Creanavarra, Spain

LANGUAGES

- Spanish · Native
- English · Fluent (C1)