

Federico Pardo García

PhD in Computer Science & AI | AI Engineer
EU Citizen | Relocation Ready | Immediate Availability
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EDUCATION

- University of Murcia** Murcia, Spain
PhD in Computer Science and Artificial Intelligence (Summa Cum Laude) May 2023 – May 2026
– Thesis: Enriched Feedback of Classroom Dynamics Using AI. 5 first-author publications in high-impact journals and conferences (IEEE Access, Applied Sciences).
- University of Murcia** Murcia, Spain
M.Sc. in Big Data and Artificial Intelligence (GPA: 8.7/10) 2020 – 2021
- University of Murcia** Murcia, Spain
B.Sc. in Computer Science, Specialization in AI 2016 – 2020

EXPERIENCE

- AI Engineer** May 2023 – Present
University of Murcia Murcia, Spain
– Designed and deployed a decoupled microservices architecture (Python, FastAPI, Docker, Celery) for multimodal AI inference, optimizing latency and ensuring high availability in local and cloud environments.
– Built end-to-end production-ready audio analysis pipelines integrating ASR (Whisper), speaker diarization, paralinguistic feature extraction, and semantic embeddings utilizing vector search (FAISS).
– Implemented Explainable AI (XAI) frameworks via SHAP values to interpret fine-tuned BERT models, bridging the gap between research models and verifiable, transparent production deployments.
– Developed scalable ETL and data engineering pipelines (Python/C++) for processing raw, high-throughput classroom audio datasets, handling complex feature engineering across heterogeneous sources.
– Authored a systematic review and 4 empirical papers on multimodal AI systems and domain adaptation techniques, translating complex academic methodology into structured engineering solutions.
- Cloud Technical Support Specialist (GCP)** Aug. 2022 – Apr. 2023
Webhelp (Google Cloud Project) Barcelona, Spain
– Provided L2 engineering support for enterprise clients on Google Cloud Platform, resolving critical incidents in Compute Engine, VPC Networking, IAM, and Google Kubernetes Engine (GKE).
– Debugged complex production issues in distributed Linux environments, collaborating with SRE teams to identify root causes in cloud infrastructure and containerized systems.
- Data Scientist and Machine Learning Engineer** June 2021 – Aug. 2022
CENTIC (Technological Center) Murcia, Spain
– Deployed a real-time Convolutional Neural Network (CNN) for industrial defect detection, achieving 98% accuracy with sub-100ms inference latency deployed directly on embedded hardware.
– Implemented and optimized an LSTM-based NLP architecture for linguistic complexity evaluation, tailored specifically for resource-constrained production inference environments.
– Managed end-to-end data lifecycle and ETL pipelines for multimodal datasets (tabular, image, and audio) spanning across multiple commercial R&D initiatives from inception to deployment.

TECHNICAL SKILLS

Generative AI & Frameworks: LLMs (Llama, Mistral), Hugging Face Transformers, Whisper, Speaker Diarization, BERT fine-tuning, Vector Search (FAISS), Multimodal Fusion, SHAP (XAI).
Systems & Infrastructure: Python (Expert), C++, Docker, Kubernetes (GKE), FastAPI, Celery, Linux, GCP (Compute Engine, VPC, Cloud Storage, IAM).
Data & ML Engineering: ETL pipelines, Signal Processing (Librosa), Feature Engineering at scale, PyTorch, TensorFlow, CNNs, RNNs (LSTM), Domain Adaptation.
Programming Languages: Python, C++, SQL, Bash, JavaScript.
Languages: Spanish (Native), English (C1 Advanced), German (Elementary).