

Fernando Velasco Lozano

Senior Applied Data Scientist

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Professional Summary

Senior AI Scientist with 10+ years of experience translating complex business challenges into scalable, cost-efficient AI solutions. Specialized in Large Language Models (LLMs), Automatic Speech Recognition (ASR), and Computer Vision. Proven track record in leading high-impact initiatives—driving cost reductions, optimizing product features, and deploying models across production environments. Expert across the full ML lifecycle, from research and fine-tuning to deployment and monitoring. Experienced team leader with a history of delivering measurable gains in performance and efficiency. Passionate about data-driven innovation, mathematics, deep learning, and rapid experimentation.

Experience

Senior Data Scientist | Stealth-Mode AI Startup (Confidential)

Mar 2025 – Present, Remote

- Designed and implemented hyper-personalization pipelines for LLMs, leveraging up to 3 RAG systems with indexed embeddings to tailor models to user groups.
- Developed LLM-as-judge frameworks to evaluate model coherence, depth, and knowledge, defining custom metrics to ensure high-quality personalization.
- Built backend systems for LLM agent orchestration, enabling collaborative decision-making among models to optimize user experience.

Electronic Arts | Data Science Team Lead

Jan 2020 – Mar 2025, Madrid, Spain

- Led end-to-end ML model lifecycle for localization and personalization, collaborating with agile teams to deliver scalable solutions.
- Fine-tuned LLMs (up to 7B parameters) for machine translation, improving quality by 15% and reducing costs by 75%.
- Developed recommendation systems for pricing and demand optimization, using A/B testing to validate product-market fit.
- Reduced ASR word error rate from 10% to <0.5% with Wav2Vec and Whisper, enhancing voice query processing.
- Built multimodal indexing systems using CLIP for image-based search and content retrieval.
- Led bronze-winning team at 2022 Spanish NLP Hackathon with a gender-neutral text generation model.
- Prototyped and productionized ML solutions using PyTorch and HuggingFace, integrating with cloud platforms for scalable deployment.
- Collaborated with cross-functional teams to align personalization strategies with business objectives, driving user engagement.

Senior Data Scientist | Dive.tv

Mar 2019 – Jan 2020, Madrid, Spain

- Developed a content-to-content recommendation engine using a knowledge graph over movie metadata, enhancing personalized content discovery.
- Led NLP and computer vision projects, delivering full ML pipelines for real-time user experience optimization.
- Built multi-camera tracking system with Facenet, FasterRCNN, and emotion recognition models.

Data Scientist | StratioDB

Jul 2015 – Mar 2019, Madrid, Spain

- Developed recommendation systems for telecom and retail, enhancing customer journey personalization with Next Best Action models.
- Supported dynamic pricing and campaign timing with ML-driven insights.

ATM Software & Aeronautic Model Developer | Indra

Jan 2011 – Jul 2015, Madrid, Spain

- Designed software and models for air traffic management systems.

Education

- **Master's Degree in Data Science**
U-TaD, Madrid, Spain (2014–2015)
- **Master's Degree in Advanced Mathematical Methods in Physics**
Universidad de Salamanca, Spain (2008–2009)
- **BSc in Mathematics (Algebraic Geometry)**
Universidad de Salamanca, Spain (2000–2005)

Skills & Technologies

- **Machine Learning & AI:** NLP, LLMs, Recommendation Systems, RAG, Query Processing, Personalized Ranking, LLM Orchestration, A/B Testing
- **Frameworks:** PyTorch, TensorFlow, HuggingFace, Scikit-learn
- **MLOps & Cloud:** MLFlow, AWS, Azure, Docker
- **Programming:** Python (Expert), SQL, Scala, R
- **Big Data Tools:** Apache Spark, Apache Beam (familiar)
- **Tools:** Git, Docker