Manel Soler Sanz

Location: Valencia, Spain (Open to remote)
LinkedIn | GitHub | Email: manelbng@gmail.com | Mobile: +34 695508934
Personal Website: https://sosanzma.github.io/

Physicist | Data Scientist | AI Researcher

With a strong background in Physics and a Master's in Data Science, I specialize in developing and implementing advanced AI solutions, with a focus on Multi-Agent Systems, Large Language Models (LLMs), and Retrieval-Augmented Generation (RAG) or Chatbots. For a more comprehensive overview of my work and interests, please visit my personal website: https://sosanzma.github.io/

Technical Skills

Languages	:	Python (3+ years), R, Matlab, C++
Frameworks	:	TensorFlow, PyTorch, Keras, Linux, Windows, AWS, Jenkins, Airflow, Azure
Libraries	:	scikit-learn, pandas, pyspark, Langchain, Hugging Face Transformers
Databases	:	MongoDB, SQL, Vector DB
Dev Tools	:	Docker, Git, Pycharm, VisualStudio, Cursor
AI/ML	:	Multi-Agent Systems, LLMs, RAG, Deep Learning, ML Model Deployment

Experience

AI Engineer — Feb 2024 – Present
VRAIN - Valencian Research Institute for Artificial Intelligence — *Valencia, Spain*

- Developing advanced Multi-Agent Systems for AI applications
- Implementing and fine-tuning Large Language Models (LLMs) for specific tasks
- Researching and applying Retrieval-Augmented Generation (RAG) techniques
- Collaborating on cutting-edge AI research projects
- **Technologies used:** Llamaindex, Hugging Face Transformers, Langchain,Amelia
- **GitHub Repository:** Link

Data Scientist — Jan 2023 – Feb 2024
Solver Intelligent Analytics — *Valencia, Spain*

- Developed and deployed Deep Learning models (RNNs, CNNs, attention layers) for various business applications
- Implemented real-time ML models using cloud services (AWS), focusing on scalable architectures
- Led a route optimization project using advanced clustering algorithms and deep reinforcement learning
- Applied state-of-the-art Deep Learning techniques to time series forecasting and resource planning
- **Technologies used:** TensorFlow, PyTorch, AWS, Pyspark, Jenkins, Airflow, MLFlow

Junior Data Scientist — Agosto 2022 – Jan 2023
Solver Intelligent Analytics — *Valencia, Spain*

- Developed time series prediction models using traditional ML and basic Deep Learning techniques
- Gained hands-on experience in ML model deployment using Airflow and Jenkins
- Assisted in prototyping ML-based solutions for various client projects

Education

Universitat de Valencia — Valencia, Spain
Master of Data Science — *Sep 2021 – Feb 2023*

- Advanced coursework in Deep Learning, including neural network architectures, optimization algorithms, and regularization techniques
- Master's thesis: Implementation of causal discovery methods for time series, applying deep learning techniques. Source Code

Universitat de Valencia Valencia, Spain
Bachelor of Physics *Sep 2016 – Jul 2021*

- Specialization in theoretical physics. Thesis focused on NLP and symbolic AI
- Degree thesis: *Symbolic artificial intelligence: first order differential equations*
- Article published on IFIC's website about final thesis

Self-Driven Learning & Projects

AI-Powered Personal Projects 2024 – Present
Open Source Development *Valencia, Spain*

- Developed multiple AI-driven projects showcasing practical applications of NLP and LLMs
- Implemented advanced techniques including RAG, vector databases, and multi-agent systems
- Utilized key technologies: Langchain, Hugging Face Transformers, Deep Lake, OpenAI API
- Projects include:
- **QA ChatBot with Source Verification:** GitHub
- **LearnSherpa AI (Book Discovery Assistant):** GitHub

Completed Courses

* Retrieval Augmented Generation for Production with LangChain & LlamaIndex
* LangChain & Vector Databases in Production
* Docker, from beginner to expert
* Amazon AWS: Complete Course Certified Solutions Architect
* Deep Learning Specialization - Coursera (Andrew Ng)

Languages

English · Proficient
Spanish · Native
Catalan · Native
German · Beginner