

Adrian Vispalia Moreno

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EXPERIENCE

SDG Group

October 2024 – Present

Developer Consultant

Santiago de Compostela (Spain)

- **Client, international airline carrier:** Achieved a **12x throughput increase** on a FastAPI (Python) RAG backend by leveraging the asynchronous capabilities of FastAPI and aiobotocore to eliminate I/O-blocking calls. Provisioned production-ready **AWS infrastructure** (ECS, ALB, SQS, DynamoDB, Bedrock) using **Terraform**, ensuring scalability and high availability
- **Client, major Spanish bank:** Worked on a FastAPI (Python) backend deployed on OpenShift (Kubernetes) for a RAG system using Azure AI Search

ENEA

January 2024 – August 2024

Master thesis intern

Rome (Italy)

- Evaluated energy-to-performance ratios of LLMs (Pythia-1b, Pythia-2.8b and Gemma-2b), using Lit-GPT and lm-eval for both LoRA and full fine-tuning for specialized Narrow AI applications
- Adapted the code to run on the ENEA's HPC datacenter: a LSF scheduler, and AFS and GPFS filesystems

FDS (DXC)

June 2021 – September 2021

Internship as Software Developer

Santiago de Compostela (Spain)

- Developed a people tracking system utilizing Python, TensorFlow lite, YOLOv4, OpenCV and RTSP
- Added functionalities on a system that collected air metrics from sensors, pushed it to Apache Kafka to later store it on ClickHouse and visualize the results on a website that used Bootstrap and Flask

EDUCATION

Erasmus Mundus Joint MSc. in Green Networking and Cloud Computing

September 2022 – August 2024

- Multi-university mobility track: Université de Lorraine (FR), Leeds Beckett University (UK) and Luleå Tekniska Universitet (SE).

Bachelor of Science in Computer Engineering

September 2018 – June 2022

- Universidad de Santiago de Compostela (Spain)

PROJECTS

Cloud Buildings

github.com/AdrianVispalia/Cloud_Buildings

- Nuxt (VueJS) website and a PostgreSQL, FastAPI and Redis backend, provisioned using Terraform or AWS SAM with multiple cloud deployments such as AWS ECS, AWS Lambda or Azure Container Apps

LiDAR Real-Time Object Detection

- Improved a LiDAR 3D cloud project by implementing real-time functionality. Two components: a C program with FPGA hardware optimizations, and a C++ program for clustering and a 3D interface

SKILLS

Programming Languages: Python, Javascript, Java, C, Bash, HTML, CSS, SQL

Frameworks and tools: FastAPI, Nuxt, VueJS, Flask, PostgreSQL, Git

Cloud and DevOps: Docker, AWS, Azure, Terraform, Redis

Languages: English - C2 (advanced), Spanish - native, Italian - B1, Galician - native

Certifications: AWS SysOps Administrator, Azure AZ-305