



# Francesco Esposito

## Data Scientist

### About Me

Hi, I'm Francesco. I'm a tech professional with a strong background in electronics and networking, and a growing passion for data. Over the years, I've evolved from programming embedded systems to building end-to-end data workflows — from scraping and cleaning to analysis, visualization, and web deployment. I specialize in Python, using libraries like Pandas, Requests, and Seaborn to explore data, and frameworks like Django and Streamlit to build data-driven tools. I'm meticulous, creative, and always focused on practical, real-world solutions. For me, data isn't just numbers — it's the raw material for insight, action, and storytelling.

### Soft Skills

- ✓ Problem Solving
- ✓ Creativity
- ✓ Communication
- ✓ Critical Thinking
- ✓ Adaptability
- ✓ Collaboration
- ✓ Continuous Learning
- ✓ Curiosity

### Hard Skills

- ✓ Python
- ✓ Pandas
- ✓ NumPy
- ✓ PyTorch
- ✓ SQL
- ✓ Machine & Deep Learning
- ✓ Data Visualization
- ✓ HTML
- ✓ CSS
- ✓ JavaScript
- ✓ Git
- ✓ Django
- ✓ Flask
- ✓ Web Scraping
- ✓ Data Cleaning
- ✓ Deployment

### Education

Sep 2024 - Dec 2024

#### Django Course: Backend Web Development

Udemy - Remote

An intensive, hands-on course focused on mastering Django for real-world web backend development with Python. Through three progressively complex projects — a personal portfolio site, a dynamic business website, and a user-authenticated web app — I built 10 reusable Django apps and learned to manage authentication, user profiles, and private messaging systems. The course emphasized practical application over theory, covering key concepts like CBVs (Class-Based Views), the MVT architecture, asynchronous requests with JavaScript's Fetch API, and deployment to cloud servers. By the end of the course, I had deployed production-ready Django projects and strengthened my backend skills with experience in testing, modular design, and scalable web architecture.

Oct 2021 - Jul 2022

#### Data Science & Machine Learning

ID Bootcamps - Madrid, Spain

A highly practical, industry-focused training program totaling over 450 hours, covering the entire data science pipeline — from Python programming and mathematics to machine learning, deep learning, NLP, data visualization, APIs, and web scraping. The program was designed to simulate a real work environment, emphasizing hands-on learning through continuous projects, peer collaboration, and live mentorship. It concluded with a final project where I applied the skills learned to solve a real-world problem using a complete data science workflow — from data extraction and modeling to presentation and deployment.

1999 - 2004

#### IT and Telecommunications

IIS G.Marconi - Torre Annunziata, Naples, Italy

This technical diploma provided a solid foundation in computer systems, software development, databases, web technologies, and telecommunications. I acquired practical skills in configuring and managing IT systems and networks, alongside theoretical knowledge in mathematics, science, and economics. The program emphasized project collaboration, data privacy, and professional use of English in a highly international context.

# 🌐 Experience

## 2022 - Present

### Data Scientist

**Visiotech** – Madrid, Spain

While maintaining my responsibilities as a manager, I began applying machine learning models and data analysis techniques to solve real business challenges within the company. This hybrid role allowed me to bring automation and data-driven solutions into operational workflows, increasing efficiency and insight in key processes.

## 2020 - 2022

### Support Manager

**Visiotech** – Madrid, Spain

As the head of the technical support department, I lead a team ensuring smooth operations and high client satisfaction in the electronic security sector. I've introduced structured processes, improved team coordination, and actively supported the implementation of new technologies.

## 2015 - 2020

### Support Specialist

**Visiotech** – Madrid, Spain

I provided high-level technical support for CCTV and security systems, working closely with customers and installers to ensure product performance and integration. This hands-on experience deepened my knowledge in embedded systems, networking, and troubleshooting.

## 2008 - 2015

### IT and Network Administrator

**starSistemi** – Torre del Greco, Naples, Italy

In parallel to my support role, I oversaw the IT infrastructure of the company, managing servers, networks, and systems maintenance. This position shaped my understanding of IT environments and gave me the foundation that later supported my transition into data and development.

## 2005 - 2015

### Pre and Post-Sales / Support Agent

**starSistemi** – Torre del Greco, Naples, Italy

I managed both pre-sales consultancy and post-sales technical support, advising clients on system configuration and ensuring smooth deployment. My role demanded a mix of communication skills and technical knowledge, bridging the gap between commercial and technical departments.

# 🌐 Languages

Based on the CEFR levels

	COMPREHENSION		SPEAKING	
	Listening	Speaking	Reading	Writing
English	A2	A2	B1	B1
Spanish	C2	C2	C2	C2
Italian	Native	Native	Native	Native
Neapolitan	Native	Native	Native	Native

# Portfolio

## User Onboarding Portal

💡 Internal Tools | [Link to Project](#)

What if a cloud service in 2024 didn't let users sign up on their own? That's exactly what we faced—until I built a custom onboarding portal using Flask, JavaScript, and Markdown-powered docs. A small internal tool that made a big difference.

## VEXPA - AI Knowledge Bot

💡 LLM | [Link to Project](#)

Imagine having your entire company's knowledge—manuals, FAQs, databases—at your fingertips, in any language, without endless searches. VEXPA is that AI-powered navigator: you ask, it finds, it explains. Built on ChatGPT, enriched with your own data, and wrapped in a smooth, multilingual experience, VEXPA turns information overload into instant clarity. Curious about how I built it and what challenges I faced along the way? Take a closer look and discover the story behind the tool.

## License Plate Recognition App

💡 Computer Vision | [Link to Project](#)

Curious about how license plate recognition really works? This project takes you behind the scenes of a fully custom-built ANPR system using YOLOv5 and PyTorch—from web scraping and dataset creation to detection, character recognition, and app deployment. Dive in to see how I tackled messy data, OCR challenges, and multi-format plate parsing, all without using off-the-shelf solutions.

## Automated Firmware Recovery Tool

💡 Scripting & Automation | [Link to Project](#)

A Python-powered recovery script that saved our reparation team during the pandemic: this tool automated the full firmware restoration process of faulty thermal scanners using Telnet and TFTP—cutting downtime, costs, and dependency on external vendors. Curious how it worked?

## Password Reset Portal

💡 Internal Tools | [Link to Project](#)

Manually handling password resets for technical devices used to be a slow, repetitive task prone to errors. This not only overwhelmed the support team but also affected the overall customer experience. So, how do you turn such a critical process into something fast, secure, and accessible from any browser? This project answers that question with the development of a web platform designed to fully automate password recovery. The tool enables staff to work independently without technical intervention and includes smart validation, image uploads, internal algorithms, and role-based access control.

## Newsletter Index

💡 Internal Tools | [Link to Project](#)

Turned a personal script into a shared dashboard that tracks and indexes company newsletters by date and language. Built with Python, BeautifulSoup, and a custom frontend, it became an essential internal tool for simplifying weekly product update meetings.

## Serial Number Format Converter

💡 Scripting & Automation | [Link to Project](#)

A simple yet powerful desktop tool to convert RFID card UUIDs between formats — built to simplify the chaotic world of access control migrations. Built with Python, Tkinter, and Openpyxl.