

DAVIDE GIARDINI

Data Scientist & AI Developer



🌐 giardinidavide.com

✉️ davide.giardini00@gmail.com

☎️ +39 327 376 3390

🌐 DavideGiardini

📍 Milan, Italy

🌐 Davide Giardini

LANGUAGES

English - C1; Italian - native

AI Developer & Data Scientist with strong theoretical foundations in statistics and machine learning. I transform unstructured data into structured Knowledge Bases through advanced NLP techniques and build Retrieval-Augmented Generation (RAG) systems on top of them. Experienced in LLM fine-tuning and deploying production-grade AI services. Published author on knowledge-graph-driven NLP for forensic analysis.

EXPERIENCE

- 3/2024 – Present **AI Developer** PricewaterhouseCoopers Italy
- Built and deployed an ML-assisted text **summarization service** integrated into the company's main platform, handling **650+ monthly** user requests through the production UI.
 - Developed an AI-powered **data extraction system** from documents and multimedia to create and populate **structured configurations**. The service receives **6000+ monthly** requests through the prod. UI.
 - Designed and maintained a backend **NER** + entity disambiguation pipeline for enabling real-time association of orphan documents to archived requests. Processes **2400+ daily** requests during busy season.
 - Development of Master Degree Thesis Project.
LLMs / VLMs / GPT / Claude / Gemini / GCP / FastAPI / Azure / GIT / NER / Summarization
- 8/2023 – 1/2024 **Student Researcher** CINI - INSID&S Lab
- **Co-authored a scientific publication** on the integration of KGs and NLP for forensic analysis:
Combining Knowledge Graphs and NLP to Analyze Instant Messaging Data in Criminal Investigations.
 - Applied advanced **NLP** techniques to **extract named entities** from unstructured data originating from real judicial investigations.
 - Structured and stored WhatsApp chat data into a Neo4j-based **Knowledge Graph** (379k+ nodes), enriched with extracted entities and metadata.
 - Implemented locally running **Automatic Speech Recognition** (ASR) pipelines to transcribe evidentiary audio content into searchable text.
Research / KGs / Neo4j / NLP / Spacy / NER / NEL / Bert / ASR / Whisper

EDUCATION

- 9/2022 - 03/2025 **Master Degree: Data Science** University of Milano Bicocca; Milan, Italy
- **110 with honours**. GPA: 29.53
 - **Thesis Project**: *Unveiling Hidden Information in Unstructured Documents: Organization and Hybrid Retrieval with Knowledge Graphs*.
NLP / Fine Tuning / ML / Deep Learning / NNs / RAG / Data Management / Decision Models
- 9/2019 - 7/2022 **Bachelor Degree: Statistical Sciences of Economy and Business** Alma Mater Studiorum; Bologna, Italy
- **110 with honours**. GPA: 28.87
 - **Thesis Project**: *Evaluation of the Effectiveness of Twitter Sentiment Analysis as a tool for Stock Market Forecasting*
Statistics / Probability Theory / Linear Algebra / Big Data / Data Analysis / Forecasting

PROJECTS & INTERESTS

Projects

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A comprehensive demonstration of my skills can be found in the selected projects available in my portfolio.

Python / R / LoRA / Mistral / TensorFlow / PyTorch / transformers / Word2Vec / CNNs / MongoDB / Scraping

Interests

Deep personal interest in neuroscience and its connection to AI, with ongoing independent reading and research into biologically inspired models and cognitive architectures.