

Giorgio Caizzi

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EXPERIENCE

Product Senior Engineer – Generative AI

May 2024

Jakala S.p.A.

Milan, Italy

Development of end-to-end Generative AI solutions tailored to industry needs –from research and prototyping to deployment to the Cloud– with a focus on observability and cost-effectiveness.

- RAG and BI Agents, multimodal LLMs, Multi-agentic patterns and orchestration.
- DevOps for GenAI and LLMOps: TDD for GenAI Agents, groundedness and guardrail, deployment to production, CloudOps, monitoring and evaluation of Agents outputs and performance.

Environmental Engineer

Feb. 2021 – May 2024

AECOM URS Italia S.p.A.

Milan, Italy

Technical consultancy on remediation procedures in industrial sites across Italy, in compliance with D.Lgs.152/06.

- Developing solutions for effective collection, processing, analysis and restitution of environmental spatial data.
- Project management: budgeting, proposals, planning, and billing. Regular meetings with clients.

External Collaborator

Mar. 2020 – Dec. 2020

Wiseair S.r.l.

Milan, Italy & Lisbon, Portugal

Development of a GIS-based framework for spatial interpolation of PM2.5 concentration data, taking into account the contribution of urban features and their morphology in the dispersion of pollutants.

Event specialist – "Citycrusher" Team

Sep. 2017 – Sep. 2020

Red Bull Italia S.r.l.

Milan, Italy

Managing brand-activation of Red Bull Citycrusher event-car in selected sport events in Italy.

Hero Team Promoter

May. 2014 – Sep. 2019

GoPro EMEA GmbH

Munich, Germany

Promotion of cameras and brand-activation in selected events in Europe.

EDUCATION

BSc & MSc in Environmental and Land Planning Engineering

Milan, Italy

Politecnico di Milano

Sep. 2014 – Dec. 2020

MSc: Data structures, analysis & ML for environment – Advanced Statistics – Advanced GIS – Databases and Spatial SQL

"Spatial interpolation methods for producing high-resolution PM2.5 concentration maps in Milan, Italy" **BSc:** Soil & groundwater remediation – Sustainability – Climate change mitigation – Hydrology – Hydraulics – Geology

"Environmental and economical impact of Case dell'Acqua, a free drinking-water distribution project in Milan by MM S.p.A."

The British School of Brussels

Brussels, Belgium

International Baccalaureate (IB Diploma)

Sep. 2012 – May. 2014

LICENSES

Italian National Association of Engineers: 2021

TECHNICAL SKILLS

Programming: Python, JavaScript & TypeScript, shell scripting

Cloud: Infrastructures on AWS, GCP & Azure, Cloudflare

Deployments: Docker & Docker Swarm, Serverless, orchestration

Data: SQL & noSQL, Redis, graphs

Development: CI/CD pipelines, git, testing, documentation

GenAI: Langchain, OpenAI API, HuggingFace, langgraph, LlamaIndex, MS Copilot Studio

API: REST & GraphQL, OpenAPI specifications

Observability: Opentelemetry – Grafana stack: Prometheus, Loki, Tempo, Alloy

Web frameworks: Flask, FastAPI, Django, Express, Nest.js, Next.js

Data Science: pytorch, pandas, numpy, sklearn

GIS: ArcGIS, QGIS, PostGIS, GDAL, geopandas, shapely,

Writing: LaTeX, Markdown & reStructuredText

Web: HTML & CSS, TailwindCSS

PROJECTS

py3dinterpolations quick 3D spatial interpolations

mplstrater plot stratigraphic logs with matplotlib

smart-spotify create smart playlists with Spotify

python, pandas & geopandas, scikit-learn, numpy, shapely, pyproj

python, pandas & geopandas, matplotlib, shapely, rasterio

JavaScript, node.js, Express, HTML, CSS, APIs

PERSONAL SKILLS

Languages: Fluency in Italian (mother tongue) and English. French at professional level.

Interests: skiing, surfing, road-cycling and outdoors. Cartography, infographics and mapping. Tech and AI.