Giorgio Caizzi

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EXPERIENCE

Product Senior Engineer – Generative AI
Jakala S.p.A.

May 2024
Milan, Italy

Developement 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 guardrailing, deployment to production, CloudOps, monitoring and evaluation of Agents outputs and performance.

Environmental Engineer
AECOM URS Italia S.p.A.

Feb. 2021 – May 2024
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
Wiseair S.r.l.

Mar. 2020 – Dec. 2020
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
Red Bull Italia S.r.l.

Sep. 2017 – Sep. 2020
Milan, Italy

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

Hero Team Promoter
GoPro EMEA GmbH

May. 2014 – Sep. 2019
Munich, Germany

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

EDUCATION

BSc & MSc in Environmental and Land Planning Engineering
Politecnico di Milano

Milan, Italy
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
International Baccalaureate (IB Diploma)

Brussels, Belgium
Sep. 2012 – May. 2014

LICENSES

Italian National Assotiation 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, rasterio
Writing: LaTeX, Markdown & reStructuredText
Web: HTML & CSS, TailwindCSS

PROJECTS

 py3dinterpolations quick 3D spatial interpolations — python, pandas & geopandas, scikit-learn, numpy, shapely, pyproj
 mplstrater plot stratigraphic logs with matplotlib — python, pandas & geopandas, matplotlib, shapely, rasterio
 smart-spotify create smart playlists with Spotify — JavaScript, node.js, Express, HTML, CSS, APIs

PERSONAL SKILLS

Languages: Fluency in Italian (mothertongue) and English. French at professional level.
Interests: skiing, surfing, road-cycling and outdoors. Cartography, infographics and mapping. Tech and AI.

References and letters of recommendation available on request.