

Andrea Maioli

DATA SCIENTIST

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Experience

Freepoint Commodities

SENIOR DATA SCIENTIST

Zug, Switzerland

Sep. 2024 - Present

- Forecast wind and solar power production and power demand of EU countries (focus on coverage calibration and probabilistic forecast). Improved vendor forecasts on 7 days ahead time horizon by 8%.
- Lead team of 3 people (2 meteorologists + 1 IT) in the construction of the weather datalake from scratch based on the zarr archives and parquet (polars+duckdb).
- Leading team of 2 people and coordinating several analysts to standardize data structures on database.

DXT Commodities SA

DATA SCIENTIST

Lugano, Switzerland

Mar. 2019 - Jul. 2024

- Forecast 4Gw renewable portfolio power generation (wind, solar, hydro, consumption), power and gas demand of EU countries.
- Automatic outage and outlier detection for dispatched power plants.
- Algotrading system for Italian intraday market.
- Structured whole MLOps infrastructure (cookiecutter+Mlflow+Jenkins+Prefect)

UniCredit S.p.a

QUANTITATIVE RISK ANALYST IN GROUP FINANCIAL RISK METHODOLOGIES

Milan, Italy

Apr. 2017 - Feb. 2019

- Analysis of sensitivity of fixed income portfolios.
- Modelisation and implementation of regulatory risk measures (Expected Shortfall).

Education

Università di Bologna

MASTER IN MATHEMATICAL FINANCE "CORSO ALTA FORMAZIONE FINANZA MATEMATICA"

Bologna, Italy

Specialisation in Stochastic equations and Option pricing. Application of Montecarlo, quasi-Montecarlo and Fourier transform methods.

Paris Saclay

MASTÉR M2 "ANALYSE, MODÉLISATION ET SIMULATION" SPECIALISED IN DISPERSIVE EQUATIONS

Paris, France

Master Thesis: "Structure of global solutions for a damped Klein-Gordon equation".

Università di Pisa

BACHELOR DEGREE IN MATHEMATICS

Pisa, Italy

Thesis: "Cauchy-Kovaleskaya's theorem"

Honors & Awards

2017 **Scholarship "Prometeia"**, Master "Corso Alta Formazione Finanza Matematica"

Bologna, Italy

2016 **Full Scholarship "Fondation mathématique Jacques Hadamard"**, Mastér M2 AMS

Paris, France

Tech Skills

Programming languages

Python (sklearn, torch, pygam, ~~pandas~~ polars, duckdb), SQL, VBA

Dashboard

Streamlit (♥), Panel

MLOps

Git, MLflow, Docker, Jenkins, cookiecutter, Prefect

Most used models

Linear regression (♥), Catboost, Ensemble NeuralNet, GRU, Conformal predictions

Cloud computing

AWS

Hobbies

Drummer

Funky, Indie rock

Board Games

Power Grid, Bang! (best player in the world)

Crochet

Mostly plants amigurumi

Opera

My favorite is La Cenerentola of course

Dreams

Dunk at basketball

Work in progress... almost there...

Skateboard

Ollie to get on sidewalk.

Bake bread

Failed attempts: 5 —:-(✓

Kungsleden

Complete full Kungsleden trail. ✓