

Davide MONACO



PROFILE

I have a strong inner drive to learn and master every aspect of the job—what I would describe as an internal hunger, an endless source of motivation. I enjoy diving deep into topics and learning independently to build broad, cross-disciplinary knowledge. You can find some of my projects at the following link: <https://efemcy2245.github.io/ForumMachineLearning/>. Over the past month, I've taken the time to organize my thoughts on several key topics. I've shared what I've learned by publishing my insights and perspectives. This is a great opportunity for me—not only to demonstrate what I'm capable of, but also to leave a piece of myself in the work.

CONTACT DETAILS

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PERSONAL INFORMATION

Citizenship: **Italian**
Languages: **Italian** (native)
English (fluent),
German (school-level)

HOBBIES

Gym, Cooking, Reading, Drawing

EXPERIENCE

DATA SCIENTIST at *NanoTech Analysis Srl (NTA) (Italy)*. **2024.11–pres.**

◊ I am conducting experimental research for my thesis focused on identifying volatile organic compounds (VOCs) using genetic algorithms developed entirely in Python. The entire framework is created from scratch, using molecular libraries and genetic algorithms to build predictive models. Experimental results may lead to a future patent

WAITER at *Many facilities in Italy*.

2015–pres.

◊ For over a decade, I self-financed my studies through hospitality roles, including five years at the luxury resort Borgo Egnazia. These experiences honed my adaptability, communication, and problem-solving skills in high-pressure settings. Today, I bring this versatility and people-focused mindset to my work as a Data Engineer in multicultural tech teams.

EDUCATION

M.S. IN DATA SCIENCE AND ENGINEERING (English course) *Polytechnic University of Turin*. **2025**

Thesis: Design and development of intelligent algorithms for the analysis of raw data acquired through highly miniaturized devices and the identification of Volatile Organic Compounds (VOCs)

B.S. IN AUTOMATION ENGINEERING (Italian course) *Polytechnic University of Bari*. **2021**

Thesis: Analisi comparativa di modelli di canale per comunicazioni Internet of Drones

PROJECT

DEEP LEARNING MODELS ON RESOURCE CONSTRAINED HARDWARE – A NASWOT [TEAMWORK] [\[CLICK HERE!\]](#)

Skills: Deep Learning - ML4IOT - Convolutional NN - Distilled NN

CODE REVIEW AND PROJECT WORKFLOW ANALYSIS FOR GIT-DATA [TEAMWORK] [\[CLICK HERE!\]](#)

Skills: Large Language Models - Continuous Integration - Prompt Engineering - Git-Hub

GENETIC PROGRAMMING TOOLBOX – SYMBOLIC REGRESSION [SOLO] [\[CLICK HERE!\]](#)

Skills: Genetic Algorithm - Optimization algorithm - Local Search

SENTIMENT ANALYSIS OF TWITTER DATASET [TEAMWORK] [\[CLICK HERE!\]](#)

Skills: Supervised Learning - Data Cleaning - Pipeline

CAREER SIMULATION OF POLITECNICO STUDENTS [SOLO] [\[CLICK HERE!\]](#) NATURAL SELECTION PROCESS FOR ANIMALS [SOLO] [\[CLICK HERE!\]](#)

Skill: Simulator - Dynamic distribution - Modeling problem

HOW TO IMPROVE PIRELLI COMPANY [TEAMWORK] [\[CLICK HERE!\]](#)

Skill: Innovation Management - Business Model

ADDITIONAL ACTIVITY

UNIVERSITY OF MICHIGAN. Coursera.

- Programming for Everybody (Getting Started with Python)
- Python Data Structures
- Using Python to Access Web Data (Audit Mode - complete)
- Using Databases with Python (Audit Mode - in course)

JOHNS HOPKINS UNIVERSITY Coursera.

- HTML, CSS, and Javascript for Web Developers - Johns Hopkins University (Audit Mode - complete) - Introduction to CSS3 - Johns Hopkins University (Audit Mode - in course)

CLOUD COMPUTING - AMAZON WEB SERVICE Coursera.

- Introduction to Information Technology and AWS Cloud (Audit Mode - in course)

SKILLS

PYTHON, R, JAVA, MATLAB, PYSPARK, XML, HTML, SQL, NOSQL, GITHUB, ETL, APACHE HADOOP, SPARK, KAFKA, PYTORCH, TENSORFLOW, KERAS, TABLEAU, CNN, RNN, RL, EVOLUTIONARY A, PROMPT ENG, HYPOTHESIS TESTING, BAYESIAN INFERENCE, BOOTSTRAPPING, INFERENCE ANALYSIS, SIMULATOR, DAG, GDPR, DPIA, COMMUNICATION AND TEAM COLLABORATION