

ALESSANDRO PIANA

M.SC. MATHEMATICAL ENGINEERING



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About Me

I am a student of M.Sc. in Mathematical Engineering - Statistical Learning. My main interests concern probability, statistics and how they can be applied in various fields.

LinkedIn Profile: www.linkedin.com/in/alessandro-piana-a87868211

GitHub Profile: <https://github.com/alepiana>

Experience

HUMAN TECHNOPOLE Nov 2024 - Jun 2025

Scientific Visitor

Master Thesis Project: Digital Twin for risk assessment in ICU patients

PRIVATE TUTOR 2018 - PRESENT

I give private lessons in math and physics for high school students

THE MORETON HALL PUB Sept 2018

Pub Waiter

Education

2022 - 2025

Politecnico di Milano

**Master of Science
Mathematical
Engineering**

OOP principles (C++), Continuous and Discrete Markov Chains, Data-Driven Black-Box System Identification, Advanced Regression Method, Classification and Clustering, Bayesian Statistics, Time Series Analysis and Modeling, Life and Non-life Insurance, Neural Network and Deep Learning. All the courses were held in English.

2019 - 2022

Politecnico di Milano

**Bachelor of Science
Mathematical
Engineering**

Programming (C, R, AMPL and SQL), Mathematical Analysis (I,II,III), Probability and Markov Chains, Statistics and Statistical Inference, Rational Mechanics, Operations Research and Algorithms.

Projects

COMPARATIVE ANALYSIS OF HYDROCARBON CONCENTRATIONS IN MILANO AND SCHIVENOGLIA (MN) AIR QUALITY MONITORING SITES

Bayesian Statistics, Time Series Analysis, Monte Carlo Markov chain, LaTeX, R

SURVIVAL PREDICTION OF PATIENTS WITH COLORECTAL LIVER METASTASES

Logistic Regression, Clustering, Classification, Survival Analysis, Kaplan-Meier Estimator, R, LaTeX

IMPLEMENTATION OF A CONVOLUTIONAL NEURAL NETWORK FOR IMAGE CLASSIFICATION

Deep Learning, Neural Network, Convolutional Neural Network, Optimization, Python

BODY COMPOSITION ANALYSIS: ESTIMATING BODY FAT IN A SAMPLE OF 250 ADULT MEN

Linear Regression, Outliers detection & Analysis, Prediction, R

VOLATILITY PREDICTION IN FINANCIAL MARKETS

Feature Engineering, Time Series Analysis, Regression, Machine Learning, Python, LaTeX

Programming Languages

The main programming languages I used in university courses are: C, C++, Python, R, MATLAB, AMPL