Mattia Alfero

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Professional Experiences

PhD Candidate in Economics and Finance Sep 2023 – Present
University of Rome "Tor Vergata" *Rome, Italy*

- Research interests: Macroeconometrics, Financial Econometrics.

Research analyst May 2022 – August 2023
European Central Bank - Monetary policy directorate, capital markets division *Frankfurt, Germany*

- Traineeship from May-2022 to May-2023
- Main tasks: macro-financial modeling, financial markets analysis, supporting economists in drafting reports and presentations.
- Main tools: Python, R, Matlab, VBA, SQL, Excel, Bloomberg, Eikon Datastream.

Data scientist trainee Sep 2021 – Apr 2022
CRIF s.p.a. - Advanced analytics product management *Bologna, Italy*

- Main tasks: synthetic data modeling (Copula, GAN, VAE, Neural network) and evaluation (statistical tests), credit risk models development, data visualization on Python, data engineering on AWS.
- Main tools: Python (pandas, numpy, sklearn, tensorflow), R, SQL, AWS (Sagemaker, Glue, Athena, Quicksight), Shell window/linux

Ski Instructor Jan. 2016 – Present
Scuola Sci Prato Nevoso *Prato Nevoso, Italy*

- Individual and collective teaching.

Education

Alma Mater Studiorum - University of Bologna Jan. 2021 – Dec 2021
Post-Graduate MSc in Quantitative Risk Management *Bologna, Italy*

- Main topics: Financial econometrics, Stochastic processes, Derivatives, Market risk, Credit risk, Machine learning, Financial intermediation and regulation.
- Entirely taught in English
- Thesis: Synthetic data generation and implementation on an advanced analytics platform.
- Grade: 30/30 with honours

University of Turin Sep. 2018 – Nov. 2020
MSc in Economics *Turin, Italy*

- Main topics: Statistics, Econometrics, Static and Dynamic optimization, Numerical methods, Corporate Finance, Macroeconomics, Macroeconometrics.
- Entirely taught in English.
- Thesis: The Term Structure of Interest Rates and Macroeconomic Dynamics: a Factor-Analysis.
- Grade: 110/110 with honours

University of Turin Sep. 2015 – Nov. 2018
BSc in Economics *Turin, Italy*

- Main topics: Statistics, Econometrics, Calculus, Financial mathematics, Linear algebra, Microeconomics, Macroeconomics, Corporate Finance, Financial Markets.
- Grade: 101/110

Additional Education

Barcelona Graduate School of Economics (GSE) Jul. 2019 – Jul. 2019
Summer school in Dynamic and non-linear panel data models. *Barcelona, Spain*

University of Turin May. 2020 – Jun. 2020
Computer science with python - Extra-curricular activity (3 CFU). *Turin, Italy*

Datacamp - Data Science platform Oct. 2020 – Jan. 2021
SQL Server fundamentals; Machine learning fundamentals. *Online*

Bloomberg Market Concept (BMC) Aug. 2022 – Aug. 2022
Modules: equity, fixed income, basic terminal. *Online*

Computer science skills

Office Package: Good Knowledge, in particular: Excel.
Python: Good Knowledge, in particular: Pandas, Numpy, Matplotlib, scikit-learn, Keras.
R: Good Knowledge, in particular: dplyr, copula.
Windows: Good Knowledge, in particular: Shell, PowerShell.
Matlab: Good Knowledge.
SQL: Intermediate Knowledge.
AWS: Intermediate Knowledge, in particular: S3, Sagemaker, Glue, Athena, Lambda/Step functions.
Stata: Basic Knowledge.
Eviews: Basic Knowledge.
PySpark: Basic Knowledge.
SAS: Basic Knowledge.

Languages

English: Good Knowledge (MSc and 2nd level MSc entirely taught in English).
French: Basic Knowledge, studied in high school.

Scientific Articles

Enabling synthetic data adoption in regulated domains; Giorgio Visani, Giacomo Graffi, Mattia Alfero, Enrico Bagli, Davide Capuzzo, and Federico Chesani; 2022 IEEE 9th International Conference on Data Science and Advanced Analytics (DSAA).

Other

Certificates: Ski Instructor, Lifeguard.
Skills: Team working, model-based reasoning, problem-solving.
Hobbies: Statistics, Economics, Coding, Risk, Finance, Skiing, Surfing.