Federico Mazzoni
AI and Data Analysis

👤 Male   📅 20 Feb 1995

📍 Via Privata Bianchi 6, Pisa, Italy

✉ mazzoni.federico1@gmail.com

📞 +39 3334850927   in LinkedIn

○ GitHub   ↖ Project Portfolio

🌐 LANGUAGES

Italian
Mother tongue

English
FCE - C1

German
Fit - A2

▶ KEY DIGITAL SKILLS

Statistical analysis and data visualization

Dataset pre-processing
Imbalanced learning, PCA, data augmentation, fairness, outliers, and missing values

Classification, regression, and clustering
Also with data streams and incremental learning

Model evaluation and explanation

Programming & Query Languages:
Python, R, Java, JavaScript, SQL, MDX, Bash

Some of the libraries I used:
Pandas, SKLearn, TensorFlow, PyTorch, PySpark, NetworkX, NLTK, DEAP, Matplotlib, Seaborn, RiverML

💼 PROFESSIONAL EXPERIENCE

Fellow at National PhD Program in Artificial Intelligence
University of Pisa ⬈
2022 – present | Pisa, Italy
My main project focused on creating a hybrid decision-maker:
- Understanding the behavior of a human decision-maker;
- Envisioning a Human-in-the-Loop hybrid system with an LLM interface, helping the human user make decisions;
- Evaluating the human - machine (LLM) trust;
- Detecting potential concept drifts in data over time;
- Making the assistant an independent human surrogate.

Academic Tutor and Supervisor
University of Pisa ⬈
2021 – present | Pisa, Italy
I held lectures, edited slides, helped students, and examined them. I also supervised the Master's thesis *SafeGen: A Data-Anonymization Fairness-Enhancing Framework*.

Freelance Data Analyst
2022 | Pisa, Italy
As a freelance, I worked on data analysis projects, including:
- A recommendation system, employing both content-based and collaborative filtering approaches;
- Compiling a new dataset by scraping multiple data sources.

Trainee
University of Pisa ⬈
2022 | Pisa, Italy
Traineeship focused on pre-processing for outlier detection.

Creative Director and Writer
Emergency / Tunué ⬈
2019 – 2020 | Milan / Latina, Italy
I wrote the script and supervised the artists for the graphic novel project *I colori di una nuova vita* ⬈ .

Writer
Cassiopea Production
2018 – 2019 | Rome, Italy
I wrote seven promotional shorts for the European Union. ⬈

🎓 EDUCATION

Summer School – Deep Learning
SDU – University of Southern Denmark ⬈
2023 | Odense, Denmark

Summer School – AI & Society
University of Pisa ⬈
2023 | La Maddalena, Italy
School focused on the ethical ramifications of AI. With other colleagues, I proposed the project "IUS - Intelligent University System", which won the project work contest.

Master's Degree in Digital Humanities | 110 cum laude

University of Pisa ↗
2020 – 2022 | Pisa, Italy
Data Science and Language Technologies (NLP)

Relevant Exams: Data Mining, Social Network Analysis, Text Analytics, Distributed Data Analysis and Mining, Semantic Web, Laboratory of Data Science, Computational Linguistics

Master's Thesis: *Genetic Fairness-Enhancing Data Generation Framework* ↗
- Proposing *GenFair*, an algorithm to remove discrimination towards demographic groups in training datasets, thus mitigating the bias of models trained on them;
- *GenFair* employs a genetic algorithm to create synthetic data, enhancing the original dataset;
- Good experimental results, overcoming several limitations of state-of-art competitors.

Specialization Course in Scriptwriting | 110 cum laude

Accademia Nazionale d'Arte Drammatica Silvio d'Amico ↗
2017 – 2019 | Rome, Italy

Bachelor's Degree in Philosophy | 110 cum laude

University of Pisa ↗
2014 – 2017 | Pisa, Italy

🏅 SCIENTIFIC PUBLICATIONS

F. Mazzoni, R. Guidotti, A. Malizia - A Frank System for Co-Evolutionary Hybrid Decision-Making
Symposium on Intelligent Data Analysis 2024

F. Mazzoni, M. Manerba, M. Cinquini, R. Guidotti - GenFair: A Genetic Fairness-Enhancing Data Generation Framework
International Conference on Discovery Science 2023

F. Mazzoni, A. Failla, S. Citraro - Quantifying and Reducing Marginalization in Networks: a Genetic Approach
International Conference for Computational Social Science 2022

A. Failla, F. Mazzoni, S. Citraro - Attribute-aware Community Events in Feature-rich Dynamic Networks
International Conference on Complex Networks and Their Applications 2022 (Book of Abstracts)

✒ DECLARATION

I authorize the processing of personal data contained in my curriculum vitae based on art. 13 GDPR 679/16.

Fedlico Mazoni