

Federico Mazzoni

AI and Data Analysis



Male 20 Feb 1995

Via Privata Bianchi 6 Pisa, Italy

mazzoni.federico1@gmail.com

3334850927 in My LinkedIn

My GitHub My Portfolio

LANGUAGES

Italian

Mother tongue

English

FCE - C1

German

Fit - A2



PROGRAMMING & QUERY LANGUAGES

Python

Skillful

SQL

Skillful

Java

Beginner

JavaScript

Beginner

MDX

Beginner

Spark

Beginner

R

Novice



PROFESSIONAL EXPERIENCE

Fellow at National PhD Program in Artificial Intelligence

Università di Pisa

2022 – present | Pisa, Italy

I focused on hybrid human-machine decision-making.

- Understanding the behavior of a human annotator;
- Envisioning a personal assistant helping the human annotator remain consistent;
- Making the assistant an independent human surrogate.

Supervisor

Università di Pisa

2022 – 2023 | Pisa, Italy

I supervised the Master's thesis "SafeGen: A Data-Anonymization Fairness-Enhancing Framework".

Freelance Data Analyst

2022 | Pisa, Italy

As a freelance, I worked on a recommendation system.

- Content-based approach, extracting information from reviews with VADER NLP algorithm;
- Collaborative filtering approach, employing Python "Surprise!" library.

Trainee

Università di Pisa

2022 | Pisa, Italy

Traineeship focused on pre-processing for outlier detection.

Academic Tutor for Video Editing class

Università di Pisa

2021 – 2022 | Pisa, Italy

I assisted Professor Tobia Pescia with the Video Editing class.

- Holding lectures on scriptwriting;
- Helping the students with their projects;
- Assisting the professor with the final examination.

Video Editor

Università di Pisa

2021 – 2022 | Pisa, Italy

I edited videos for Unipi's "Laboratorio di Cultura Digitale".

Creative Director and Writer

Emergency / Tunué

2019 – 2020 | Milan / Latina, Italy

I was involved with the graphic novel project *I colori di una nuova vita* :

- Defining a creative vision with the two companies;
- Writing the script;
- Supervising the artists involved;
- Helping organize a workshop with high-school students.

Writer

Cassiopea Production

2018 – 2019 | Rome, Italy

I wrote seven promotional shorts for the European Union.

DIGITAL SKILLS

Statistical analysis and data visualization

Dataset pre-processing

Imbalanced learning, PCA, fairness, outliers, and missing values

Classification, regression, and clustering

Also with incremental learning

Model evaluation and explanation

Key libraries:

Pandas, Sci-Kit Learn, TensorFlow, PyTorch, NetworkX, NLTK, Matplotlib, Seaborn

Fields:

Tabular data, time series, texts, network

SOFT SKILLS

- Lateral Thinking
- Creativity
- Teamwork
- Stress Management
- Presentation
- Brainstorming
- Commitment

INTERESTS

- Writing
- Acting
- Movies
- Games
- Cooking

OTHER

Improvisational Theatre

2015 – 2017 | Pisa, Italy

I played improvisational theatre with *ADA - Arsenale Delle Apparizioni*. [↗](#) This experience helped me understand how to speak in public and how to react to unexpected events.

EDUCATION

Summer School - AI & Society

2023 | La Maddalena, Italy

School focused on the ethical ramifications of AI. With other colleagues, I proposed the project "IUS - Intelligent University System", which took the first place in the project work contest.

Master's Degree in Digital Humanities | 110 cum laude

Università di Pisa [↗](#)

2020 – 2022 | Pisa, Italy

Master's Thesis: *Genetic Fairness-Enhancing Data Generation Framework* [↗](#)

- Proposing GenFair, an algorithm to remove discrimination toward certain 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.

Master's Program 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

Università di Pisa [↗](#)

2014 – 2017 | Pisa, Italy

PUBLIC PROJECTS

2022. FairNet [WIP] [↗](#)

Fairness-enhancing framework for networks.

2022. Nintendo Dataset [WIP] [↗](#)

Building a dataset including every Nintendo product.

2022. Judging a Book by its (Back) Cover [↗](#)

Classifying the genres of several books from Goodreads.

2022. APpeal - Android's Way to Success [↗](#)

Distributed analysis of a large dataset of Android apps.

2021. Who Made the "Switch"? [↗](#)

Temporal analysis of Nintendo communities from Twitter.

2021. ROCK-CD [↗](#)

An experimental community detection algorithm.

2021. Data Politics [↗](#)

Textual and statistical analysis of politicians' tweets.

SCIENTIFIC PUBLICATIONS

F. Mazzoni, M. Manerba, M. Cinquini, R. Guidotti - GenFair: A Genetic Fairness-Enhancing Data Generation Framework

European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases

2023 - Submitted

F. Mazzoni, R. Guidotti, A. Malizia - A Frank System for Co-Evolutionary Hybrid Decision-Making

International Conference on Discovery Science

2023 - Submitted

F. Mazzoni, A. Failla, S. Citraro - Quantifying and Reducing Marginalization in Networks: a Genetic Approach

International Conference for Computational Social Science

2022 - Accepted

A. Failla, F. Mazzoni, S. Citraro - Attribute-aware Community Events in Feature-rich Dynamic Networks

The 11th International Conference on Complex Networks and Their Applications - Book of Abstracts

2022 - Accepted



DECLARATION

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

Federico Marani
