Marco Fasoli

Genoa, Italy
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Education

Università degli Studi di Genova — Genoa, Italy
Master's Degree in Computer Science, Artificial Intelligence Track — 2025–Present
GPA: **30/30**. Taught and assessed entirely in English.

Università degli Studi di Genova — Genoa, Italy
Bachelor's Degree in Computer Science — 2022–2025
Final grade: **110/110 cum laude**.

IT Technical Institute Italo Calvino — Genoa, Italy
High School Diploma, specialization in IT — 2017–2022
Final mark: **100/100**.

Experience

ELICSIR Foundation – Scuola Ortogonale — 2025–2027
Selected Scholar

- Selected for a two-year program complementing master's studies through research mentorship, seminars, and collaborative projects; developing independent research and scientific communication skills.

ELICSIR Foundation – Contaminazioni Ortogonali — 2024
Selected Scholar

Projects and Reports

White-Box Interpretability in the AIMO Challenge — Ongoing

- Predicting the robustness of LLM mathematical reasoning using early reasoning signals and internal representations. Preparing a research report on experimental methods and findings.

Painter Identification from Medieval Letter Crops — 2026–Ongoing

- Identifying medieval manuscript painters from letter crops using SVMs, Random Forests, and ResNet-50, with interpretability analysis.
- Referee: Prof. Luca Calatroni.

Distributed Machine Learning Survey — 2026

- Co-authored a survey on distributed LLM training, covering parallelism, communication, and memory optimization (ZeRO, FSDP)
- Referee: Prof. Valeria Cardellini.

Hive Game AI bot — 2025–2026

- Developed two alternative AI approaches for a Hive bot ranked approximately fifth worldwide: AlphaGo-inspired Monte Carlo Tree Search (MCTS) using a GAT and classical alpha-beta search using a NNUE.

Spurious Correlations in Random Forests — 2025

- Analyzed how Random Forests learn spurious correlations from biased datasets during training and rely on them at inference, investigating the underlying mechanisms and their impact on performance and reliability.
- Referee: Prof. Vito Paolo Pastore.

Talks

Distributed Machine Learning — March 2026

- Presented a talk on Parameter Server architecture and its difference from All-Reduce in distributed training.

Scholarships & Achievements

ELICSIR Scholarship — 2024, 2025–2027

- Awarded the "Contaminazioni Ortogonali" and "Scuola Ortogonale" scholarships for computer science research and development; one of 20 students in Italy.

Pretto Cassanello Scholarship — 2024, 2025, 2026

- Three-time recipient for outstanding academic achievements.

Languages

Italian: Native — **English:** B2 (Cambridge certified)