Greta Coraglia

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Professional profile

I am a mathematician with experience in research and interdisciplinary collaboration, passionate about tackling complex problems from multiple perspectives. I am experienced in teaching, public speaking, and communicating complex ideas with clarity, with a focus on making AI accessible and empowering for diverse audiences. I am active in civic life and motivated by social impact. I am calm under pressure, proactive, and team-oriented, and I cherish in connecting people and ideas to deliver pragmatic solutions.

Relevant work experience

MIRAI Srl **Mar 2024 - present:** *Founder, research associate*
Co-founded a start-up in collaboration with industry experts to help public and private organizations achieve regulatory compliance while upholding the highest standards of transparency and fairness. I moved the research in the background of different projects, spanning from RAG evaluation to assessment of ML classification algorithms.

University of Pavia **Mar 2025 - present:** *Adjunct professor in Logics for AI*
Lectured for the Logics for Practical Reasoning and AI course in the joint Bachelor's program in Artificial Intelligence (UniPv–UniMi–UniMiB). This role expanded my expertise in causal graphs and honed my public speaking, communication, and organizational abilities.

Segrate City Council **Sep 2020 - present:** *Majority chief whip*
Co-organized a civic movement and was elected to my city's council on a civic list. Currently serving as chief whip of the largest council group and as vice-president of the council. Responsibilities include coordinating council activities on key policy issues, drafting and advancing legislative proposals, negotiating with institutional offices and stakeholders, and organizing public events to inform and actively engage citizens in shaping and implementing public policy.

University of Milan **Mar 2023 - July 2025:** *Postdoctoral researcher*
Conducted research in the BRIO (Bias, Risk, and Opacity in AI) project, advancing formal methods to assess AI fairness and risk. I co-developed open-source tools in partnership with private companies for real-world applications, such as to credit scoring. I benefitted from working within a multidisciplinary team, combining strong technical problem-solving with effective cross-sector communication.

University of Genoa **Nov 2019 - Aug 2023:** *Doctoral candidate in Mathematics*
Worked for a Ph.D. in Mathematics with specialization in logic, category theory, type theory, and theoretical computer science. I developed a strong foundation in rigorous problem-solving and abstract reasoning, with practical applications to formal system design, programming language theory, and algorithmic thinking.

During this time, I also taught a Linear Algebra (Geometry) course to first-year Electronic Engineering students. That strengthened my ability to explain complex technical concepts clearly, while reinforcing my expertise in linear algebra with emphasis on its engineering applications in data modeling.

Education

University of Genoa *Nov 2019 – Aug 2023*
Ph.D. in Mathematics
Thesis: "Categorical structures for deduction", supervisor: Prof. G. Rosolini
Expertise: logic, category theory, theoretical computer science, type theory

University of Milan *2017 – 2019*
M.Sc. in Mathematics (with honors)
Thesis: "A categorical perspective on Heyting-valued sets", sups: Profs. S. Ghilardi and G. Rosolini
Expertise: logic, category theory, fuzzy logic, automated reasoning, formal methods

University of Milan *2013 – 2017*
B.Sc. in Mathematics
Expertise: algebra, linear algebra, geometry, logic, foundations of mathematics

Awards, certifications, and such

Academic. Won the prize for Best Master's Thesis in Logic (2019) awarded by the Italian Logic Association (AILA). Won several research and travel grants: the Adjoint School participation (2022) in Glasgow, a stay at CIRM Marseille (2022) for "Logic and Higher Structures" and "Linear Logic Winter School", travel to the Symposium on Compositional Structures (SYCO, 2019) in Leicester, and invitations to visit the Mathematics Department at the University of Aberdeen (May 2023), the Laboratoire de Mathématiques de l'Université Savoie Mont Blanc (Nov-Dec 2023), the Compositional Systems and Methods group at Tallinn's University of Technology (May 2022).

Linguistic. British Council Aptis ESOL attested (January 2025) CEFR grade: C2.

Reasoning and numerical. Successfully passed (June 2024) selection tests from the European Personnel Selection office highest grade: EPSO/CAST/P/17/2017 - Information and communication technology (FG IV).

Technical tools

Python, C, Git, tools for formal methods (SAT, SMT, Prolog, NuSMV).

Social involvement

Popularization. I am a strong believer in the necessity of democratizing knowledge: during COVID with some friends we organized community seminars on YouTube, and I gave one on the concept of infinity; in 2020 with a colleague we participated in a high school programme teaching logic (syllogisms and Turing machines) to high-school students; with ItaCa, I helped organizing a YouTube course in category theory with specialists in the topic; I wrote about constructive mathematics in a dissemination journal; with some friends and colleagues we are organizing a public conference to demystify the narrative on AI, to acknowledge its benefits, and to encourage action.

Translating etc (English). Translated two books and contributed to a community initiative preparing Italian subtitles for international works. Provided interpreting support for authors at an international book festival, facilitating communication across languages and cultures.

Last updated: September 2025