

Giacomo Cirò

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EDUCATION

ETH Zürich

MSc Thesis Student

March 2024 - present

Zürich, Switzerland

- Conducting my MSc Thesis in the Computer Vision & Geometry Group under the supervision of Dr. Zuria Bauer and Prof. Marc Pollefeys. Working on 4D scene understanding and dynamic object representation.

Bocconi University

MSc in Computer Science (Artificial Intelligence)

September 2024 - present

Milan, Italy

- GPA: 30.4/30 (top 1/40+).
- Recipient of Bocconi Graduate Merit Award (36,000 €, full tuition waiver based on academic performance).
- Relevant coursework: Advanced Linear Algebra, Optimization, Deep Learning, Reinforcement Learning, Computer Vision, Statistical Physics, Partial Differential Equations, Information Theory, Market Microstructure.

Bocconi University

BSc in Economics and Computer Science

September 2021 - July 2024

Milan, Italy

- Grade: 110 *Cum Laude* (highest possible, final GPA 29.8/30).
- Thesis on gene expression modeling with deep learning, supervised by Prof. Francesca Buffa (then, hired as a researcher at the same lab).
- Relevant courses: Machine Learning, Computer Programming, Information Theory, Linear Algebra, Calculus, Complex & Fourier Analysis, Probability, Statistics, Big Data & Databases, Game Theory, Mechanism Design, Econometrics, Principles of Finance, Microeconomics, Macroeconomics.

EXPERIENCE

Bocconi Institute for Data Science and Analytics (BIDSA)

Machine Learning Researcher

March 2024 - April 2026

Milan, Italy

- Secured three research contracts for the ERC-funded MicroC project, under Prof. Francesca Buffa's guidance.
- Designed and developed a novel model architecture that combines prior biological knowledge and insights from AlphaFold 2 for gene expression modeling.
- Earned guest researcher status at the AIRC Institute for Molecular Biology (IFOM) to access additional resources.
- Utilized SLURM, Anaconda and Singularity to work on three HPC clusters (Bocconi, IFOM, CINECA).
- Used TileDB for efficient out-of-core access and manipulation of 500+ GB of RNA sequencing data.
- Presented our research on transcriptomics scaling laws at CIBB 2025.
- Tech stack: Python, TileDB, PyTorch, PyTorch Lightning, Git, GitHub, SLURM.

Lexroom.ai

Machine Learning Engineer

June 2025 - September 2025

Milan, Italy

- Selected as the sole Machine Learning Engineer Intern for a legal tech startup (hire n. 30, top 10% startup by growth, 10M ARR in 18 months from launch), contributing to the development of AI for legal professionals.
- Developed a recursive algorithm for real-time quote monitoring, and reduced quote hallucination from 13% to 0%.
- Engineered an ETL pipeline to construct a Neo4j knowledge graph from 5,000+ unstructured Italian Supreme Court rulings and implemented an out-of-core PageRank algorithm for node relevance scoring.
- Tech stack: Python, GCP, Flask, Langchain, Neo4j, Git, GitHub, CI/CD.

Bocconi Students for Machine Learning (BSML)

Co-founder, Vice-President

June 2023 - February 2026

Milan, Italy

- Built the first machine learning community at Bocconi University from 0 to 60+ active members and 120+ alumni.
- Built and maintained the association's website, managing multiple contributors (Gitflow, PRs and protection rules).
- Published 16 projects and executed 9 events with external speakers (10+ speakers, 300+ attendees in total).
- Hosted a tutorial session on the use of Bocconi's HPC cluster.
- Organized and promoted 4 hackathons, including one with judges from Boston Consulting Group X (BCG-X).
- Launched the "Transfer Learning Program", a student mentorship initiative. Mentoring three students.
- Organized and executed a full-day visit at Microsoft Italy for 35 selected students with 10 professional speakers.

ADDITIONAL INFORMATION

- **Community Involvement & Volunteering:** AGESCI boy-scout for over 10 years. Summer camp animator and cook. Mentee at Lead the Future. Fellow at EuroTech Federation. Quant Developer at Bocconi Students Investment Club. Podcast host at AI AI che male che mi fai.
- **Open-source Contributions:** Fixed errors in the Understanding Deep Learning textbook by Simon J.D. Prince (The MIT Press, 2023). Fixed bugs in TileDB-Vector-Search, a library for efficient out-of-core vector search. Contributed to the Conda package manager.