Daniele Montagnani

Objective

Incarico di Ricerca: Analisi di dati longitudinali sulla condizione occupazionale dei laureati usando teoria dell'informazione e artificial intelligence

Education

University of Pavia 2025 - 2028
PhD program in Computational Mathematics, Learning, and Data Science

University of Milan-Bicocca Sept. 2022 - Mar. 2025
MSc in Artificial Intelligence for Science and Technology
Curriculum in Quantum and Complex Systems

- Final score: 110/110 cum laude
- Relevant courses: Advanced Math, AI, ML, Statistical Learning, Causal Networks, AI Models for Physics, Advanced Statistical Mechanics
- Notable projects: Quantum Simulation (Variational Ansatz with Graph Networks), AI Models for Physics (PINNs), Unsupervised Learning (Anomaly Detection), Supervised Learning (Computer Vision)
- Master's thesis:
  - Lab: Statistical Physics of Cells and Genomes Lab (IFOM and Unimi)
  - Supervisor: Prof. Marco Cosentino Lagomarsino
  - Title: Mechanistic Modeling of Cell Size Control Strategies
  - Description: Studied the emergence of cell size control from mechanistic models of its molecular implementation

Bocconi University Sept. 2021 - Apr. 2024
MSc in Economic and Social Sciences

- Final score: 104/110
- Exchange program: **Toulouse School of Economics**
- Relevant courses: Game Theory, Decision Theory, Advanced Microeconomics, Industrial Organization
- Master's thesis:
  - Supervisor: Prof. Sonia Petrone
  - Title: Economics Aware Statistical Inference
  - Description: Used game theory to model statistical inference in strategic environments

University of Milan Sept. 2021 - Dec. 2023
Single Courses from the MSc in Philosophical Sciences

- Courses: Logical Methods, Advanced Logic, Logic of Computation and Information

Bocconi University Sept. 2018 - Oct. 2021
BS in International Economics and Finance (Major in Finance)

- Final score: 108/110
- Relevant courses: Microstructure of Financial Markets, Introduction to Options and Futures, Financial Economics
- Bachelor's thesis:
  - Supervisor: Prof. Barbara Rindi
  - Title: Market Microstructure in Decentralized Finance
  - Description: (Studied the market microstructure of decentralised exchanges)
- Activities and societies: President and Head of Research at the Bocconi Students Blockchain and Cryptocurrencies Association

Professional Experience

Research Analyst Mar. 2021 - Aug. 2022
Lemniscap

- Built an internal knowledge base to develop tokenomics expertise
- Designed tokenomics tracking systems to collect and analyze successful token models
- Leveraged tokenomics expertise to offer support to portfolio companies in their design and launch strategies
- Leveraged tokenomics expertise to spot economic inefficiencies and consequent trading advantages
- Designed custom trading strategies to obtain tailored financial exposure
- Created tools and formulated exit strategies to optimize returns based on the momentum and performance of listed tokens
- Developed and implemented internal tools to track and calculate the fund's Net Asset Value (NAV)
- Conducted in-depth research across various thematic sectors of the blockchain ecosystem, leading to co-branded reports published in collaboration with prominent research houses. Areas of focus included: protocols for decentralised financial derivatives, stablecoins, and gaming economies

IT Skills

General IT / Suite Office:

- Excel expert: financial modelling and creation of organisation tools
- Azure: set up remote vms/storage to handle compute-intensive tasks for university projects
- Linux: installed, personalised and used Arch Linux on an old laptop to improve linux expertise

Programming:

- Python with relevant scientific computing libraries
- Pytorch: machine learning library
- Pytorch Lightning: deep learning framework
- Pytorch Geometric: machine learning library for graph neural networks
- NetworkX: python library for studying graphs and networks
- Weight & Biases: machine learning experiments' tracking
- DADApy: statistical library based on information imbalance

Language Skills

- **Italian:** Mother tongue
- **English:** Fluent, IELTS 8.0
- **French:** Conversational
- **Spanish:** Conversational

Dichiarazione di consenso al trattamento dei dati personali

Autorizzo il trattamento dei miei dati personali ai sensi del Dlgs 196 del 30 giugno 2003 e dell'art. 13 GDPR (Regolamento UE 2016/679).

Data e Firma

16/01/2026 Daniele Montagnani