

GIULIO CAPUTI

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EDUCATION

UNIVERSITY OF OXFORD

MSc in Statistical Science

Oxford, United Kingdom

Sep 2024 – Sep 2025 (expected)

- Relevant Coursework:** Statistical Machine Learning, Applied Statistics, Statistical Inference, Statistical Programming, Computational Statistics, Stochastic Models in Mathematical Genetics, Simulation Methods, Graphical Models, Bayes Methods

BOCCONI UNIVERSITY

BSc in Economics, Management and Computer Science

Milan, Italy

Sep 2021 – Jul 2024

- Grade:** 110/110 *Cum Laude*
- Relevant Coursework:** Machine Learning, Computer Programming, Computer Science, Big Data and Databases, Calculus, Probability, Statistics, Linear Algebra, Microeconomics, Macroeconomics, IT Law, Accounting, Game Theory, Econometrics
- Thesis:** “Bayesian Optimization for Database Management” ([thesis file here](#))

GEORGIA INSTITUTE OF TECHNOLOGY

Exchange Semester, Computer Science and Economics

Atlanta, Georgia, USA

Jan 2024 – May 2024

- Grade:** 4.0/4.0
- Relevant Coursework:** Understanding Markets with Data Science, Network Science, Labor Economics

EXPERIENCE

AMAZON

Business Intelligence Engineer Intern

Luxembourg, Luxembourg

Jun 2023 – Nov 2023

- Identified and corrected inefficiencies in warehousing strategies through data mining techniques with Python and SQL
- Developed machine learning models to optimise the performance of several Database Management Systems (DBMSs), reducing their running time by up to 75%, and helping to achieve an estimated reduction in costs of €14 million
- Designed data pipelines that automate the collection of data through various AWS applications (e.g., Redshift, S3, Lambda, QuickSight)

BOCCONI STUDENTS FOR MACHINE LEARNING ([BSML](#))

President and Co-Founder

Milan, Italy

Jun 2023 – Jun 2024

- Organised hackathons and machine learning events (e.g., tech interns experience, discussions about papers)
- Managed 100+ members and led two research groups

DELOITTE

Cyber Security Analyst Intern

Milan, Italy

Jan 2023 – Apr 2023

- Worked in the actuarial division, employing software such as Prophet and Archer
- Used statistical techniques to quantify the client’s cybersecurity risks, increasing accuracy in prediction by 26%

EXTRACURRICULAR ACTIVITIES & ASSOCIATIONS

Nova Talent Member | LeadTheFuture Mentorship Mentee | Bocconi University Student Ambassador | B.Cyber Researcher | Bocconi Students for Digital Transition Head of Marketing | Bocconi Students for Data Science Associate | RedBubble Designer and Store Owner ([my store](#)) | Luiss EnLabs Service Learner | Associazione Italiana Malati di Cancro Associate | Banca d’Italia Service Learner | Model UN Delegate

RESEARCH INTERESTS

Automated Tuning of Database Management Systems (DBMSs) Exploring how machine learning and advanced statistical methods can be used to optimise DBMSs performance ([linked to Amazon](#))

Bayesian Optimisation Researching ways to optimise complex black-box functions ([linked to Amazon and undergraduate thesis](#))

Network Science Investigating algorithms for network analysis and modeling ([linked to Bocconi Students for Machine Learning](#))

SELECTED PROJECTS

Missing Knowledge Links My team and I developed an algorithm that, starting from an input Internet page, builds a network of all connected pages, up to a certain depth. The algorithm later identifies pages that, although not connected among them, share many neighbours. The aim was to identify knowledge that may be used in certain fields where it is currently not employed

Model Predicting House Prices I trained different ML models using data on houses for sale and points of interest close to them

Tic-tac-toe with Reinforcement Learning I trained an AI to play tic-tac-toe using reinforcement learning

ADDITIONAL INFORMATION

Skills Python (e.g., Pandas, Scikit-learn, PyTorch) Options algorithmic trading, Data analysis, Quantitative research, Data science, Mathematics, Backtesting, Trading strategies, Financial modeling, Programming, Monte carlo, Markov chains, Statistical inference, Communication, Problem solving

Udemy Courses Optimization problems and algorithms, Python for Finance and Algorithmic Trading, Web Scraping in Python

Standardized Tests GRE 331 (168 Quant, 163 Verbal, 4.0 AWA), IELTS 8.0

Interests Philosophy, Weightlifting, Running, Scuba Diving, Calisthenics