

GIULIO CAPUTI

[LinkedIn](#) | [GitHub](#) | [Personal Website](#) | giulio.caputi@st-hughs.ox.ac.uk

EDUCATION

UNIVERSITY OF OXFORD

MSc in Statistical Science

Oxford, United Kingdom

Sep 2024 – Sep 2025 (expected)

- **Relevant Coursework:** Statistical Machine Learning, Advanced Statistical Machine Learning, Applied Statistics, Statistical Inference, Statistical Programming, Computational Statistics, Probability for Network Analysis, Graphical Models, Bayes Methods

BOCCONI UNIVERSITY

BSc in Economics and Computer Science

Milan, Italy

Sep 2021 – Jul 2024

- **Grade:** 110/110 *Cum Laude* (highest possible)
- **Relevant Coursework:** Machine Learning, Computer Programming, Computer Science, Big Data and Databases, Applied Mathematics, Statistics, Advanced Statistics, Game Theory, Microeconomics, Macroeconomics, IT Law, Finance, Econometrics
- **Thesis:** “Bayesian Optimization for Database Management”, supervised by Prof. Omiros Papaspiliopoulos ([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 (highest possible)
- **Relevant Coursework:** Understanding Markets with Data Science, Network Science, Labor Economics

WORK 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 database systems, reducing their running time by up to 75%
- Designed data pipelines to automate data collection 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

Oxford University Italian Society Member | 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 | AIMAC 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, expensive-to-evaluate 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

Quantitative Finance Events LTF Aperitivo con Optiver (Milan, Italy), G-Research Quant Challenge (Oxford, UK), Citadel Info Session & Networking (Oxford, UK), Da Vinci Trading Drinks (Oxford, UK), Jane Street Estimation (Oxford, UK)

Skills Python (e.g., Pandas, Scikit-learn, PyTorch) Options algorithmic trading, Data analysis, Quantitative research, Data science, Calculus, 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

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

Interests Philosophy, Weightlifting, Running, Scuba Diving, Calisthenics

I authorise the processing of my personal data present in this curriculum vitae pursuant to Legislative Decree 30 June 2003, n. 196 and to the GDPR (EU Regulation 2016/679)