Simone Maria Giancola

Milan, Italy

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EDUCATION

Bocconi University   Milan, ITA

MS Data Science — Data Science Major   *Aug 2021 – Apr 2024*
- GPA: 29 / 30; Final grade: 110 *cum Laude* / 110
- Thesis "A roadmap to Message Passing methods for inference on Mixed Generalized Linear Models, with emphasis on Mixed Noiseless Phase Retrieval"; Advisor Prof. Carlo Lucibello
- **Ph.D.** Relevant coursework: Real Analysis (Optimal Transport), Graph Theory, Statistical Physics
- Relevant coursework: Advanced Machine Learning, Optimization, Stochastic Processes

Arizona State University   Phoenix, USA

Undegraduate Exchange Program   *Jan 2021 - May 2021*
- GPA 4.17 / 4.00
- **Graduate** relevant coursework: Quantum Computation, Modeling with Game Theory

Bocconi University   Milan, ITA

BS Economics, Management and Computer Science   *Aug 2018 - Jul 2021*
- GPA 29.18 / 30 — Grade 110 Cum Laude / 110
- Relevant coursework: Advanced Statistical Methods, Applied Mathematics, Machine Learning

EXPERIENCE

Research Intern   Feb 2024 - Apr 2024

King Abdullah University of Science and Technology (KAUST)   *Jeddah, KSA*
- Advisor: Prof. Peter Richtárik
- Optimization, Conditioned Gradient Descent methods, Machine Learning

Research Intern   Oct 2023 - Present

École Normale Supérieure (ENS)   *Paris, FRA*
- Advisor: Bruno Loureiro
- Neural Network Theory, high-dimensional data, Stochastic Gradient Descent, Gradient Flow

Research Intern   Jun 2023 - Aug 2023

Institute of Science and Technology Austria (ISTA)   *Wien, AUT*
- Advisor: Prof. Marco Mondelli
- Statistical to Computational Gaps, Information Theory, Algorithms, Message Passing

ISTernship Summer Programme, ref. num. MPC-2023-01128, financed by ISTA, awarded by the OeAD

Visiting Student   Mar 2022 - Jun 2023

Bocconi Institute for Data Science   *Milan, ITA*
- Advisors: Prof. Carlo Lucibello and Prof. Luca Saglietti
- Reading, self-study, writing

Research Assistant   Jan 2021 - May 2021

Bocconi University   *Milan, ITA*
- Advisor: Prof. Emanuele Borgonovo
- Value of Information, Support Vector Machines

PUBLICATIONS

Peter Richtárik, **Simone Maria Giancola**, Dymitr Lubczyk, and Robin Yadav. *Local Curvature Descent: squeezing more curvature out of standard and polyak gradient descent.* In: 2024. arXiv: 2405.16574 `[math]`.

SKILLS

Advanced Python, Latex, Sklearn, Numpy, Matplotlib, Scipy;
Intermediate Julia, Git, Unix, R, SQL, Matlab, C++, Keras, Tensorflow.

LANGUAGES

English (proficient) TOEFL 108; Italian (mothertongue); Spanish (basic).

PROFILE & INTERESTS

Passionate about Statistics, Mathematics and Computer Science. Result driven, detail oriented, and able to apply theoretical knowledge to solve real world problems. Fast learner, moved by curiosity. Good team player, while being able to work independently and take on responsibility.

In my spare time I enjoy: rugby, motorbike trips, podcasts, running.