

Simone Maria Giancola

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EDUCATION

Bocconi University

Milan, ITA

MS Data Science – Data Science Major

Aug 2021 – Jul 2023

- GPA: 29.20 / 30
- **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

- Grade 110 Cum Laude / 110, Thesis: “*Value of Information in a Support Vector Machine, an exploration*”
- GPA 29.18 / 30 , **STEM GPA** 30.14 / 30
- Relevant coursework: Advanced Statistical Methods, Applied Mathematics, Machine Learning

EXPERIENCE

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, Computing Sciences Department
- Reading and self-study activities

Data Science Intern

Jan 2022 – Mar 2022

Santagostino Clinic

Milan, ITA

- Automated monthly report
- Identified customers' origin among services offered

Research Assistant

Jan 2021 – May 2021

Bocconi University,

Milan, ITA

- Advisor Prof. Emanuele Borgonovo
- Conducted research on extraction of a Value of Information measure from a SVM algorithm

SHORT WIRTINGS & TALKS

Literature reviews and presentations on various topics (< 100 pages).

Compositional RBMs, a Bird's Eye view

Mar 2023

- Restricted Boltzmann Machines, Statistical Physics, Unsupervised Learning

A view on Percolation and Spin Systems

Mar 2023

- Percolation, Potts Model, Spin Systems, Random Cluster Model

Notes on the Neural Tangent Kernel

Jan 2023

- Deep Learning Theory, Neural Networks, Kernel Methods

Notions in Optimal Transport for Sigmoid Neural Networks

Jan 2023

- Deep Learning Theory, Optimal Transport, Neural Networks

Bipartite Matching & extensions

June 2022

- Linear Algebra, Graph Theory, Duality, Hungarian Algorithm, admissible transformation theory, Pfaffian orientations


Advanced Session, Harvard mini-course on Computation

Jan 2022

- Simulated Annealing, Statistical Mechanics, TSP

OTHER SELF STUDY / EXTRACURRICULARS

Additional courses and/or longer writings (> 100 pages).

Probability Theory <ul style="list-style-type: none">• Measure Theory, Stochastic Processes	Sep 2022 - Jan 2023
Statistical Physics <ul style="list-style-type: none">• Machine Learning, Optimization, Physics, Neural Networks	June 2022 - Ongoing
Geometric Deep Learning <ul style="list-style-type: none">• <i>First Italian School in Geometric Deep Learning</i>, Funded MS student ()• Group Theory, Statistical Learning, Neural Networks, Topology	June 2022 - Dec 2022
Bayesian MCMC probit analysis co-authored <ul style="list-style-type: none">• Gibbs Instrumental Algorithm, Metropolis Random Walk Algorithm	December 2021

SKILLS

Advanced Python, Latex, Sklearn, Numpy, Matplotlib, Scipy;
Certifications Deep Learning and AI for Medicine by DeepLearning.AI;
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.