Simone Maria Giancola

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EDUCATION

Bocconi University

Milan, ITA

MS Data Science

August 2021 - July 2023

- GPA: 28.96/30
- Modules include: Advanced Machine Learning, Optimization, Stochastic Processes

Arizona State University

Phoenix, USA

Undergraduate Exchange Program

January 2021 - May 2021

- GPA 4.17 / 4.00, 4 classes
- Graduate level modules: Quantum Computation, Modeling with Game Theory

Bocconi University

Milan, ITA

BS Economics, Management and Computer Science

August 2018 - July 2021

- \bullet Grade 110 Cum Laude / 110, final GPA 29.18 / 30
- Thesis: "Value of Information in a Support Vector Machine, an exploration"
- Modules include: Advanced Statistical Methods, Applied Mathematics, Machine Learning

EXPERIENCE

Visiting Student

March 2022 - Present

Bocconi Institute for Data Science

Milan, ITA

- Advisors: Professors Lucibello C. and Saglietti L., Computing Sciences Department
- Participating to research projects and reading groups

Data Science Intern

January 2022 - March 2022

Santagostino Clinic

Milan, ITA

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

Research Assistant

January 2021 - May 2021

Bocconi University, advisor: Professor Borgonovo E.

 $Milan,\ ITA$

- Conducted research on extraction of a Value of Information measure from a SVM algorithm
- Experienced: programming, academic research, paper reading, thesis writing

Technology Analyst

July 2020 - August 2020

Barclays Bank PLC

Radbroke, UK

- Assigned to Application Performance Monitoring team, delivered documentation on main tools.
- Raised $>1000~\mathrm{GBP}$ in an internal charity fundraising for the NHS

Projects 🖸

Geometric Deep Learning Lecture Notes

Ongoing

- Redacted lectures and talks on the topic
- Keywords: Group Theory, Statistical Learning, Neural Networks, Topology

Bayesian MCMC probit analysis | co-authored

December 2021

- Composed document with Theory and implementation
- Keywords: Gibbs Instrumental Algorithm, Metropolis Random Walk Algorithm

Heartbeat Classification and Disease Detection

September 2020

- Classified patients using a Random Forest after analysis and exploration
- Identified condition with 90% accuracy from a single heartbeat

COVID-19 Analysis | co-authored

April 2020

- Visualization and prediction with Italian data
- Estimated low boundary time to extinction of the pandemic with curve fitting



Bipartite Matching & extensions

June 2022

- Report and Presentation on aspects of the assignment problem
- Keywords: Linear Algebra, Graph Theory, Duality, Hungarian Algorithm, admissible transformation theory, Pfaffian orientations

Advanced Session, Harvard mini-course on Computation

January 2021

- Report and presentation on Simulated Annealing
- Keywords: Simulated Annealing, Statistical Mechanics, TSP

TECHNICAL SKILLS

Advanced Python, Latex, Sklearn, Numpy, Matplolib, Scipy; Certifications Deep Learning and AI for Medicine by DeepLearning.AI; Intermediate Keras, Tensorflow, Git, Unix, R, SQL, Matlab, C++

LANGUAGES

English (Advanced) IELTS 8.0 Italian (mothertongue); Spanish (Basic)

Additional self education

- Physics
 - Foundations of Physics @Bocconi (2), Introduction to Mechanics, Kleppner and Kolenkov
 - Statistical Mechanics @Stanford (2), Concepts in Thermal Physics, Blundell

• Deep Learning Theory

- Geometric Deep Learning course and book, Bronstein, Bruna, Cohen, Veličković (2)
- First Italian School in Geometric Deep Learning 25th-28th July 2022 (**2**)

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, whilst able to work independently and take up responsibility.

In my spare time I enjoy playing Rugby - which I practiced at a regional competitive level for four years.