

# 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

- 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 Borghonovo 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 (on personal webpage)

### Technology Analyst

July 2020 - August 2020

*Barclays Bank PLC*

Radbroke, UK

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

## PROJECTS

### Geometric Deep Learning Lecture Notes

Ongoing

- Redacted lectures and talks on the topic
- Structured the document from a theoretical perspective

### Bayesian MCMC probit analysis | co-authored

December 2021

- Composed document with Theory and implementation
- Coded Gibbs Instrumental and Metropolis Random Walk Algorithms

### 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

## TALKS

### Bipartite Matching & extensions

June 2022

- Report and Presentation on theoretical aspects of the assignment problem
- Elaborated on admissible transformation theory and pfaffian orientations

### Advanced Session, Harvard mini-course on Computation

January 2021

- Presented Simulated Annealing with a TSP application
- Produced notes and slides on Statistical Mechanics exploitation and transition properties

## TECHNICAL SKILLS

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**Advanced** Python, Latex, Sklearn, Numpy, Matplotlib, Scipy;

**Certifications** Deep Learning and AI for Medicine by DeepLearning.AI;

**Intermediate** Keras, Tensorflow, Git, Unix, R, SQL, Matlab, C++

## LANGUAGES

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English (Advanced) IELTS 8.0

Italian (mothertongue); Spanish (Basic)

## ADDITIONAL SELF EDUCATION

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- **Physics**

- *Foundations of Physics @Bocconi* ([link](#)), Introduction to Mechanics, Kleppner and Kolenkov
- *Statistical Mechanics @Stanford* ([link](#)), Concepts in Thermal Physics, Blundell

- **Deep Learning Theory**

- *Geometric Deep Learning course and book*, Bronstein, Bruna, Cohen, Veličković ([link](#))
- *First Italian School in Geometric Deep Learning* 25<sup>th</sup>-28<sup>th</sup> July 2022 ([link](#))

## PROFILE & INTERESTS

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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.