

EDUCATION

Since 2021	ESSEC Business school & CentraleSupélec (Paris-Saclay) Master's in Data Sciences & Business Analytics GPA: 18/20 Core Courses: Statistics, Optimization, Machine Learning, Algorithms and Complexity, Databases, NLP	Paris, France
2018-2021	Bocconi University Bachelor's degree in Economics and Social Sciences (BESS) Final Grade: 100/100 cum Laude Core Courses: Mathematics, Methodology of Social Sciences, Cognitive Sciences, Computer Sciences	Milan, Italy
2014-2018	Liceo Classico Cesare Beccaria Humanities and Classical Studies Diploma with Math Empowerment Final Grade: 100/100	Milan, Italy

PROFESSIONAL AND RESEARCH EXPERIENCE

2023 (6 mo.)	Machine Learning Researcher – Transvalor <u>Graph Deep Learning on Meshes</u> , with Prof. Magoules and Prof. Bugiotti (CentraleSupélec) <ul style="list-style-type: none"> Approximated complex and slow simulations in the heavy industry by implementing Deep Learning techniques on graphs, resulting in node-level predictions with > 95% accuracy and 70% increase in speed. Solved generalization issues for surface-level prediction on new objects through structured pre-training, leading to 10% of original time needed for predictions on unseen data and minimal losses in accuracy. Facing the need to make the model more reliable and explainable, the application of state-of-the-art methods for a lighter graph-level regression setup resulted in further improvements of predictive power (+8%) and simulation time (-40%), together with an upcoming paper. 	Paris, France
2022 (3 mo.)	Machine Learning Researcher – Médiamétrie and Institut L. Bachelier (Paris-Saclay) <u>Cross-Device Audience Measurement</u> , with Professor O. Klopp and G. Lecué (Statistics) <ul style="list-style-type: none"> With the aim of estimating user count from an incomplete matrix of cookies, I implemented two processes for data generation, from raw real data as well as simulations from probabilistic priors, both of which are still used by the company as a benchmark for potential solutions to this new problem. Answering to a model proposed by Google for this task, different Machine Learning algorithms have been evaluated, resulting in models more powerful than benchmark both on simulated (+40%) and real (+300%) data according to standard metrics. 	Paris, France
2022 (3 mo.)	Machine Learning Researcher – ESSEC Business School <u>The Equity Premium Puzzle</u> , with Associate Professor E. Gourier (Finance) <ul style="list-style-type: none"> With the aim of evaluating newly proposed variables based on Pricing Kernels for equity premium predictions, I was in charge of implementing a benchmarking framework for time-series related predictions that is still being used by the research team. The objective of proving a theoretical linear relationship between market returns and Pricing Kernels variables has been achieved by evaluating a variety of Machine Learning algorithms in different setups, which proved statistically sound evidence for linear methods with feature selection, as intended. 	Paris, France

LANGUAGES AND IT SKILLS

Languages:	Italian mother tongue, English bilingual, French fluent (> 2 years abroad), Spanish fluent (> 4 months abroad)
IT skills:	Python expert (Numpy, Pandas, Scipy, Pytorch), R expert, C++ advanced, MongoDB expert, SQL language expert, Apache Hadoop MapReduce and Spark expert, Microsoft Office suite expert, LaTeX expert, SAS Viya advanced, Stata advanced
Other(s):	GRE certification (164 Verbal Reasoning, 164 Quantitative Reasoning), IELTS: 8, European Computer License

ACTIVITIES AND INTERESTS

2018 – 2021	Member of Build Sustainable Innovation (tech consultancy) Member of Rethinking Economics Italy	Milan, Italy
Other(s)	Competed in Philosophy Olympic games in Milan on regional level after selections (2nd place, February 2017) Various concerts with Dal Verme Theatre Orchestra 'Pomeriggi Musicali' (Milan, 1st violinist) Volunteering activity with Legambiente for the renewal of a historical villa near Turin (2017)	