EDOARDO RAFFAELLO MICHELACCI

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EDUCATION

Columbia University, Columbia Engineering   New York, NY
MSc in Financial Engineering | GPA: 4.0/4.0   Sep 2023 – Dec 2025
- Dual program: First year MSBA, second year MFE
- Coursework: Machine Learning for Finance, Asset Pricing, Stochastic Models, Optimization for Financial Engineering
- Course Assistant: Machine Learning and Data Analytics

Bocconi University   Milan, IT
BSc in Economics and Statistics | Final Grade: 110/110   Aug 2020 – Oct 2023
- Thesis: "Auction Theory Applied to Blockchain Transaction Fees Pricing"
- Relevant coursework: Advanced Econometrics, Game Theory for Microeconomics, International Economics and Finance
- Exchange program: UC Berkeley, GPA: 4.0. Relevant coursework: Asset Pricing and Portfolio Choice, Corporate Valuation

WORK EXPERIENCE

Oliver Wyman   Milan, IT
Data Science Consultant Intern   Apr 2024 – Jun 2024
- Collaborated with a team of seven peers to develop a Credit Portfolio Risk Model for a €140 billion portfolio of a major Italian bank, using the Merton simulation framework to estimate VaR and economic capital requirements
- Led the development of an algorithm to estimate the credit portfolio risk associated with rating migration of exposures and minimized the computational load of the corresponding Monte Carlo Simulation through matrix loop optimization
- Executed sensitivity analyses on the bank's credit portfolio, cloud-processing datasets exceeding 100GB in total memory size

Columbia University   New York, NY
Research Assistant - Financial Engineering   Jan 2024 – Mar 2024
- Research topic: ML methodologies applied to portfolio choice and formulation, advised by Prof. Agostino Capponi
- Carried out literature review and model validation concerning overparametrized regression models for returns prediction

PROJECTS

Statistical Arbitrage Algorithm   Jan 2024 – Aug 2024
- Developed a multi-pairs trading algorithm with a 14.9 profit factor that leverages rolling Kalman-filter beta and optimized dynamic position sizing on stock pairs selected via K-means clustering and analysis of supply chain dependencies

Power Load Time-Series Forecasting Project   Jan 2024 – Feb 2024
- Performed time series analysis on Texas energy grid load and weather data to predict power generation by fuel type with an out-of-sample R-squared of 75% by employing harmonic regression, ARIMA, and optimized-degree polynomial regression techniques

Visual Learning Research Project   Sep 2023 – Dec 2023
- Achieved 92% accuracy in identifying cancer cells in microscopic breast tissue images by developing and training several CNN models using TensorFlow, testing 133 combinations of backbones and decoders

COMPETITIONS

- **IMC Prosperity2 Trading Competition**: Secured a 13th place finish in Italy by competing in five rounds of market making games and algorithmic trading challenges
- **Cornell Investment Portfolio Case Competition:** Formulated a comprehensive investment strategy for a family heavily invested in Bitcoin, incorporating real estate acquisitions and a dynamic Constant Proportion Portfolio Insurance (CPPI) strategy, balancing Bitcoin allocation with a globally diversified risk parity portfolio across equities, bonds, and commodities
- **WorldQuant Columbia Alphathon:** Ranked 6th out of +100 participants with a Sharpe ratio of 1.98, submitting 8 alphas over the course of 3 weeks

SKILLS & ADDITONAL INFORMATION

- Technical: Python, SAS, SQL, Stata, R
- Interests: Surfing, Skiing, Boxing, DJing, Guitar