SEBASTIAN CASTELLANO

Domicile: Milan, Italy | Nationality: Italian, French

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Education

Politecnico di Milano – Master of Science

Mathematical Engineering - Quantitative Finance. Final Grade: 108/110.

Milan, Italy Sep 2020 - May 2023

Coursework: Financial Engineering, Computational Finance, Stochastic

Differential Equations, Applied Statistics, Parallel Computing, Deep Learning.

Thesis: A general methodology for the simulation of Ornstein-Uhlenbeck Lévy

processes applied to option pricing.

Politecnico di Milano - Bachelor of Science

Milan, Italy

Mathematical Engineering. Final Grade: 97/110.

Sep 2017 - Sept 2020

Coursework: Mathematical Analysis, Probability, Statistics, Physics.

Liceo Scientifico Elio Vittorini - Secondary School

Milan, Italy

Final Grade: 94/100. Semifinalist in the national mathematical competition

Sep 2012 - Jul 2017

Kangourou 2017.

Handsworth - Secondary School

Student exchange program.

Vancouver, Canada Sep 2015 - Jan 2016

Work Experience

UBS – Quant Summer Analyst

London, U.K., Jun 2023 - Present

10-week summer internship within the Global Markets division. Competed in group activities: daily trading games, weekly market wraps, market making games and monthly trade ideas. Rotated across 2 teams with two final projects and presentations.

- G10 FX STIR Trading (1st team): summarized daily macro calls. Shadowed linear derivatives traders (FX swaps, futures, XCCY swaps, ...). Developed a python project to check the divergence in the end of day traders' positions with respect to the historically "optimal" portfolio.
- 2nd team: to be decided.

UniCredit – Trade Finance

Milan, Italy, Sept 2021 - Mar 2022

International Internship Program

- Analyzed large data to monitor the pricing position of the bank with respect to competitors and to improve the efficiency of the division.
- Developed automated tools with Excel and Visual Basic.

Project Experience

Financial Engineering Group Projects

Weekly Projects - Financial Engineering course - 2021

Solved weekly case studies on: Structured Products pricing, SPV tranches pricing, counterparty/credit risk analysis, hedging against rate curve shocks, Main language: Matlab.

Market Implied Ratings through Machine Learning

 $Final \, Project-Financial \, Engineering \, course \, \hbox{--} \, Jun \, 2021$

Developed an implied rating system for 35 sovereign obligors. Used Support Vector Machine and eXtreme Gradient Boosting classification techniques to predict the official rating migrations of the obligors starting from daily S&P ratings, Bond spreads and CDS spreads derived from the market. Main language: Python.

Implied Volatility Indices, Causality with Macro-Economic Factors

Final Project – Econometrics course – Jun 2022

Modeled the Korean volatility index VKOSPI through macro-economic factors such as the term spread and credit spread of the country. Predicted future values through GLS and GARCH models. Main language: R.

Skills

Languages: English (fluent, C2), Italian (native), French (intermediate).

Technology: Knowledge of C++, Python, R, Matlab. Experience with Microsoft Excel, VBA.

Interests

Sports: Competed in skiing, football, tennis. I enjoy kitesurfing and snowboarding.

Music: Cello player in Youth Orchestra Pepita (2011-2014).