

Pablo Marchesi

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EDUCATION

- Afi Global Education** Madrid, Spain
Master's in Quantitative Finance Sep 2024 - Jun 2025
Relevant Coursework: Stochastic Calculus, Local-Stochastic Volatility, Derivatives Pricing, Interest Rate Models, Machine Learning
- National Distance Education University, UNED** Madrid, Spain
Bachelor's Degree in Mathematics Jul 2025 - Present
Relevant Coursework: Mathematical Language, Sets and Numbers, C++ Programming, Linear Algebra, Mathematical Analysis
- Polytechnic University of Valencia, UPV** Valencia, Spain
Bachelor's Degree in Telecommunications Engineering Sep 2019 - Jun 2024
Final Degree Project: Financial Signal Processing
- Polytechnic University of Valencia, UPV** Valencia, Spain
Bachelor's Degree in Business Administration and Management Sep 2019 - Jun 2024
Final Degree Project: Stochastic Processes and their Applications to Finance
- Coventry University London Campus** London, United Kingdom
Academic exchange — Business Administration and Management Sep 2022 - Dec 2022
Relevant Coursework: Investment Banking, Applied Econometrics

EXPERIENCE

- Ernst & Young, EY** Madrid, Spain
Quantitative Analyst May 2025 - Present
 - Derivatives Valuation:** Valuation of vanilla and exotic products for BBVA's audit, including derivatives on equity, FX, interest rates, credit, and inflation. Specialized in structured interest rate products with complex optionality, implemented using Python, Excel, and VBA.
 - Pricing Calculators:** Design, programming, and calibration of pricing calculators for exotic interest rate products. Implementation of a multifactor Libor Market Model (Excel and VBA) and single-factor Hull&White model (Python).
- KPMG** Madrid, Spain
Quantitative Analyst Intern Oct 2024 - Apr 2025
 - Credit Risk Audit:** Audit of credit risk models of the main Spanish banks. Replication and analysis of Exposure at Default (EAD) estimation models and review of macroeconomic projection models. Using R.
 - Derivatives Valuation Automation:** Development of VBA modules to enhance the efficiency of Excel-based derivatives valuation models. Significant reduction in workload and automation of data extraction and manual processes.
- Management Solutions** Madrid, Spain
Data Scientist Intern Feb 2024 - May 2024
 - Big Data Model Development:** Implementation of an anti-fraud alert system for Santander Bank using Python and the PySpark library. Handling large datasets with SQL and code optimization to improve runtime performance.

QUANTITATIVE FINANCE PROJECTS

- Hull-White Pricer:** GitHub repository with Python modules for building discount curves, implementing the Hull-White short rate model, simulating interest rate paths, pricing interest rate derivatives, and calibrating the model to market data. [Project link.](#)
- Greeks Estimation with Malliavin Calculus:** Application of Malliavin calculus, an extension of stochastic calculus, to reduce variance in Monte Carlo simulations for exotic option Greeks estimation, achieving more stable and efficient results. [Project link.](#)
- Stochastic Volatility with the Heston Model:** Modeling of the volatility smile in equity options using the Heston model. Study of how model parameters capture the underlying's implied probability distribution and capture different smile shapes. [Project link.](#)

OTHER

- Tech Stack:** Python, MATLAB, R, SQL, C++, VBA, Excel, LaTeX, Refinitiv Eikon, Git/GitHub
- Certificates:** Certificate in Advanced English (C1)
- University Clubs:** UPV Investment Club (Chief Financial Officer and Portfolio Manager)
- Volunteering:** Hakuna Foundation. Care for children at risk of social exclusion in Derqui, Argentina (July 2024)