# Reda Salhi

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**Available to start : July 2025**

## Education

**École Centrale Méditerranée**, MSc in Financial Engineering – Marseille, France — 2023 – Present

- **Relevant coursework:** Probability and Statistics, Stochastic Processes, Numerical Analysis, Portfolio Theory, Python

**Queen's University Belfast**, Exchange Semester – Belfast, United Kingdom — 2025

- **Relevant coursework:** Financial Modelling in Python, Derivatives, Stochastic Processes for Finance

**Derivatives Programme**, Technical Finance Training – Belfast, United Kingdom — 2025

- **Topics covered:** Futures/Forwards, Options, Swaps, Commodities, Fixed Income, Quantitative Methods, Greeks, Volatility (Implied, Realized, Smile, Skew), Option Strategies, Structured Products, Exotic Derivatives, Delta Hedging, Stochastic Volatility Models (SABR, Heston), Securitization

**Lycée Blaise Pascal**, CPGE MPSI–MP* (Selective Preparatory Classes) – Clermont-Ferrand, France — 2021 – 2023

- **Main subjects:** Mathematics, Physics, Python, SQL, Chemistry, English, Philosophy

## Work Experience

**Queen's Business School**, Quantitative Researcher – Belfast, United Kingdom — February 2025 – Present

- Conducted a systemic risk calculation and analysis of the 28 Global Systemically Important Banks (G-SIBs) using Extreme Value Theory (EVT) to assess tail risk exposure, implemented in Python.

**OCP Group**, Business Analyst Intern – Safi, Morocco — July 2024 – August 2024

- Applied corporate finance principles and DCF valuation methods to support strategic decision-making on capital investments.
- Assessed investment opportunities by analyzing maintenance budgets to maximize asset profitability.

**Aix-Marseille School of Economics**, Research Assistant – Marseille, France — December 2023 – January 2025

- Designed empirical studies and conducted large-scale data collection and analysis in behavioral economics to evaluate urban distribution patterns across countries.

## Projects

**CAPM Regression Analysis: Goldman Sachs vs S&P 500 in Python** — 2024

- Implemented a CAPM regression model in Python to estimate the beta and alpha of Goldman Sachs stock relative to the S&P 500.

**Value at Risk (VaR) Estimation in Python** — 2023

- Computed historical, parametric, and Monte Carlo VaR on the S&P 500, fixed income instruments, and a diversified portfolio.
- Performed asset-level risk contribution analysis and visualized tail risk distributions.

**Demo : Derivatives Pricing Web App in Python and Streamlit** — Project Link

- Built an interactive web app to price vanilla derivatives using Python and Streamlit.
- Integrated multiple pricing models: Black-Scholes, Binomial Tree, Hull-White, Heston, and Monte Carlo simulation.
- Ongoing: Implementation of Greeks computation and support for additional financial products.

**Interactive Portfolio Optimizer in Python and Gradio** — Project Link

- Built a portfolio simulation app based on Modern Portfolio Theory to visualize the efficient frontier and the optimal risky portfolio.
- Supports capital allocation with a risk-free asset and CAPM beta regression against the market (S&P 500 or optimal portfolio).

## Languages and Technical Skills

**Languages:** English (fluent), French (native), Arabic (native), Italian (beginner)

**Technical Skills:** Python, VBA, MATLAB, SQL, Bloomberg (basic), S&P Capital IQ, Excel, PowerPoint, GitHub

## Certifications

- **Bloomberg Finance Fundamentals** – Bloomberg
- **Bloomberg Market Concepts** – Bloomberg
- **HSBC Global Markets Job Simulation** – Forage