EL YOUSEFI AHMED
Quantitative Analyste

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ABOUT ME

Quantitative and actuarial engineer with expertise in stochastic modeling, derivative pricing, and risk management. Interested in applying Stochastic Process theory to develop advanced pricing and risk assessment models in finance.

EXPERIENCE

AtlantaSanad Insurance — **Casablanca, Morocco**

No-Life Actuary .... *January 2025 – Now*

- Developping actuarial Information System.
- Developping Actuarial reporting and Pricing Auto insurance.

La Marocaine Vie — **Casablanca, Morocco**

Life Actuary Intern .... *February 2024 – July 2024*

- Implemented IFRS 17 standards on reinsurance contracts for life insurance products (borrower death coverage).
- Designed the income statement and performed P&L analysis to identify key levers.

Financial Risk Solution — **Casablanca, Morocco**

Risk Management Intern .... *July 2023 – August 2023*

- Developed a bond pricer, valued a portfolio, and estimated Value-at-Risk.
- Calibrated the HJM model for instantaneous forward rates using U.S. Treasury data (2000–2015).

PROJECTS

Backtesting Trading Strategies .... *November 2024*

- Developed and implemented quantitative trading strategies.
- Used the Python library **Backtrader** to test these strategies on historical financial data and evaluate their performance.

Python Library for Stochastic Simulation and Statistical Inference .... *July 2024*

- Designed a data structure tailored for time series analysis.
- Developed diffusion process classes with Euler simulation methods and Maximum Likelihood Estimation (MLE).

Valuation of Asian Options .... *April 2024*

- Estimated the Black-Scholes model parameters using MLE on S&P 500 data (2010–2020).
- Valued Asian options through Monte Carlo simulation and the Rogers-Shi PDE approach.

EDUCATION

National Institute of Statistics and Applied Economics (INSEA) — **Rabat, Morocco**

Actuarial and Quantitative Finance Engineer .... *October 2021 – July 2024*

- **Relevant Courses:** Econometrics, Stochastic Calculus, Quantitative Methods, Risk Theory, Statistical Methods in Finance, Fixed-Income Products, and Financial Markets, Linear and Nonlinear Modeling, and Time Series Analysis.

Preparatory Classes for Grandes Écoles — **Salé, Morocco**

Mathematics and Physics .... *September 2019 – July 2021*

- **Relevant Courses:** Mathematics and Python Programming.

SKILLS

Languages

Arabic: Fluent French: Advanced English: Intermediate

Technical Skills

- **Programming Languages:** Python, R, VBA Excel, SAS, C++, SQL
- **Financial Engineering:** Risk Management, Derivative Pricing, Fixed-Income Products and Yield Curve Modeling, Portfolio Optimization
- **Statistical Analysis:** Regression Analysis, Time Series Forecasting (ARIMA, SARIMA, etc.), Statistical Testing

Interpersonal Skills

Analytical Thinking, Problem Solving, Communication, Teamwork