EL YOUSEFI AHMED
Quantitative Analyst

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ABOUT ME

Quantitative Engineer with expertise in statistical modeling, portfolio optimization, risk management, and algorithmic finance, experienced in Python, R, and SAS.

EXPERIENCE

AtlantaSanad Insurance — **Casablanca, Morocco**
No-Life Actuary . . . *Jan 2025 – Now*
- Developping actuarial Information System.
- Developping Actuarial reporting and Pricing Auto insurance.

La Marocaine Vie — **Casablanca, Morocco**
Life Actuary Intern . . . *Feb 2024 – Jul 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 . . . *Jul 2023 – Aug 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 . . . *Nov 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 . . . *Jul 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 . . . *Apr 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 . . . *Oct 2021 – Jul 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 . . . *Sep 2019 – Jul 2021*
- **Relevant Courses:** Mathematics and Python Programming.

SKILLS

Languages

Arabic: Fluent | French: Advanced | English: Intermediate

Hard 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

Soft Skills

Analytical Thinking, Problem Solving, Communication, Teamwork