

# CHARET Mohamed

Engineering Student in Market Finance & Actuarial Sciences  
National Institute of Statistics and Applied Economics

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in Mohamed CHARET

## EXPERIENCES

### Actuelia Africa

#### Risk Manager

8/2023 -- 9/2023 Casablanca, Morocco

- Study of Key Performance Indicators.
- Calculation of the Required Solvency Capital (SCR) using both the standard method and the internal model.
- Skills: Credit Risk, Market Risk, Model Risk, Liquidity Risk, Solvency, SCR, MCR, Solvency Ratio,

### FRS Consulting

#### actuary intern

7/2023 -- 8/2023 Casablanca, Morocco

- Study of deterministic and stochastic methods for technical provisions evaluation.
- Creation of a Python web application (with Streamlit) for technical provisions evaluation using the CHAIN LADDER method.
- Skills : Python, Streamlit, GLM, Regression, EDA, Github, Deployment.

## PROJECTS

### Finance

- Pricing of structured products.
- Pricing of European & Asiatic options using Monte Carlo simulation & PDE.
- Portfolio ratio optimization and development of an R Shiny application

### Insurance

- Modeling claim amounts and numbers using R software.
- Contract pricing in SAS.
- Estimation of claim costs and provisioning in R.
- Life Insurance Calculator with Pricing and Commercial Provisions in VBA.

### Statistics

- Prediction of cryptocurrency prices in R, by Linear Regression.
- Forecasting the price of Bitcoin.

## HARD SKILLS

- Finance: Financial Mathematics, Market Finance , Portfolio Management, Financial Modeling, Pricing Stochastic Calculus Option Theory, Quantitative Analysis, Algorithmic Trading, Financial Econometrics, Yield Curves, Monte Carlo.
- Actuarial: Pricing, Reserving, Life Insurance, Non-life Insurance, Disability Insurance, Reinsurance
- Statistics: Time Series Modeling, Linear Regression, ANOVA, Copula Theory, Principal Component Analysis, Statistical Inference, Multivariate Statistics, Generalized Linear Models(GLM).
- Computer Science: ~~Excel~~ Python, R, SAS, SQL, C++.

## SOFT SKILLS

### Languages

- English : Intermediate
- French : Advanced
- Arabic : Native

### Personality

- Analytical Thinking
- Problem Solving
- Adaptability

### Communication

- Team Collaboration
- Communication Skills

## EDUCATION

National Institute of Statistics and Applied Economics - INSEA

Rabat, Morocco

Engineer's degree -- Actuarial Science & Finance Quantitative

Sep 2021 -- Jul 2024(Expected)

### Coursework:

Descriptive statistics, Linear programming, Stochastic processes, Stochastic calculus, Life insurance, Non-life insurance, Provident insurance, Programming (R, SAS, Python, VBA, Excel), Microeconomics, Macroeconomics, Banking economics, Asset-liability management, Solvency, ANOVA, Econometrics, Multivariate statistics, Inference, Option theory, Copula theory, Reinsurance, Finance econometrics, Simulation.

- Coursework:

Algebra, Analysis, Differential Calculus, Topology in spaces, Banach spaces,  
Differential Equations, Probability, Optimization, Scientific Computing, Algorithmique &  
Programmation, Data structures, OOP C++.