Ali SIDIBE

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QUANT RISK

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SKILLS

- Strong background in Mathematics (Stochastic calculus, optimization algorithm, problem solving).
- Strong background in financial assets (derivatives, fixed income, exotics, and structured products)
- Experience with building advanced hedging and pricing strategy on derivatives contracts
- Good experiences interest rate models and curve building (stripping, bootstrapping, fallback)
- Proficient programming skills in Python, C++, VBA, Java, and SQL.
- Expert level on numerical method (monte Carlo, finite difference methods)
- Great background on market risk analysis and computation (Var, Expect Shortfall)
- Experience with building advanced statistical methods in a big data environment)
- Great capacity on anomalies investigation and issue solving in complex environment.
- Data exploration and reporting
- Knowledge on ESG and Islamic financial products structuring
- Good written, explanation reporting and interpersonal relations skill.
- Bloomberg certificated and CFA candidate.

EXPERIENCIES

Quant, BNP Paribas, Global Market, Paris France **Since Jan 2020**

- Create multiple hedging strategies for interest rate books using linear combination of interest rate swaps.
- Update and improve existing risk pricing models following the switch from EONIA to ESTER rate curve.
- Interest rate curves building using market instruments (bootstrapping)
- Implementation of Libor fallback strategies.
- Analysis reporting top management.
- Investigation of anomalies, stability and consistency on pricing and interest rate curve model
- Structuring and pricing derivatives and exotics assets risk.
- Risk measure model validation and examination of liquidity ratio
- Developing DLL pricing library in C++ to communicate with Excel / VBA
- Language tools: C++, python, VBA, Java
- Financial products: equity, liquidity bonds, swaps, futures, forwards, strips, options.

Assistant Portfolio Manager, Aviva Investors, Paris France **April-Nov 2019**

- Building a strategy of re-allocation of bond short term cash flow
- Quantitative method to compute optimal size of order following new issue.
- Introduce the score ESG in Risk measure.
- Investment documentation reporting
- Bond Risk hedging risk, liquidity risk, duration, sensibility
- Econometrics analysis to show the impacts score ESG on the risk of portfolio of the algorithm.
- Financial products: bonds, convertible bond, term contracts and derivatives on bond
- Tools: Bloomberg, Aladdin, VBA, python and excel.

Lecturer, Master 1 Finance, Université Panthéon Sorbonne **Since Oct. 2019**

- Course title: Numerical method applied in finance.
- Bond pricing and structure terms rates building (stripping, bootstrapping)
- Discretize interest rate model (Hull White, Ho & Lee, HJM) with finite method.
- Implementation with python, VBA, and C++
- Interest rate model calibration using python and VBA.

Software Engineer, Via Michelin, Boulogne Billancourt, Paris **2012-2018**

- Provide tools developed in C++ for optimization of road costs and traffic management decisions, implementation of assisted guidance algorithms.

- Evaluating test and automation processes and dependencies management.
- Project management and marketing data reporting.
- Technical tools: C++, Java, SQL, Python, MATLAB, GitHub, Excel.

RESEARCH PROJECTS

- Term structure models : Applied trinomial tree on Hull-White one-factor model to price and calibrate a range of interest rate products such as European swaption.
- Impact of ESG on corporate bond liquidity : Using bonds issue data provided by MSCI, empirically analyze the impact of the ESG score on bond liquidity, and split the effect of each component of ESG, using econometrics tools and python.
- Pricing with finite method: Discretize the black-school model with finite difference methods and implemented in python (http://finsharehub.com/)
- Market Risk: Comparison of different method of computation of VaR and ES.
- Writer of blog http://finsharehub.com/ to share what I teach at university.

Educations

- Sept 2019: Master 2 Poncet in Quantitative Finance and Risk Management, Panthéon Sorbonne
- Oct 2010: Engineering degree, Computer, Ecole National de Sciences, Tanger, Morocco
- Jul 2007: Bac + 3 in Applied Mathematics, University Cadi Ayyad, Marrakech, Morocco

Others

- Sept 2020: Sustainability Certificate, Cambridge University and Bloomberg certificate
- Oct 2019 : Specialization in portfolio quantitative Analysis, Rice University (Coursera)
- Oct 2014: Scrum Master

Hobbies

- Language: French(native), English (advanced).
- Computer science tools: C++,Python, R, VBA, Java, SQL, Excel (advanced), MySQL, Oracle, GitHub
- Financial tools : Excel, Aladdin, and Bloomberg.
- Sport: Taekwondo, football and running.
- Financial risk : Default Risk, Credit Risk, Market Risk and Liquidity Risk
- Financial products : Equity, derivatives, exotics products, structured products, bonds, commodity.
- Sustainability : Impact investing, Islamic finance and ESG.