Lionel **Sopgoui**

PhD Student in Mathematical Finance : Université Paris Cité - Imperial College London

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Summary

I am an ingenious, curious and dynamic young person with a passion for Quantitative Finance and Machine Learning for Finance. I am constantly looking for new challenges, motivated by self-satisfaction to bring concrete and efficient solutions. I am currently PhD Student, supervised by *Jean François Chassagneux* at LPSM, University of Paris, *Antoine Jacquier* at Department of Mathematics, Imperal College London, and *Smail Ibbou* at Risk Department, Groupe BPCE.

Education and Training

Université de Paris - Imperial College London, PhD student in Financial Mathematics	Sep. 2021 - Ongoing	*Paris, France*
Ecole Polytechnique - ENSAE Paris, M.S. in Financial Mathematics : Statistics and Finance	Sep. 2019 - Dec. 2020	*Palaiseau, France*
Telecom SudParis, Engineering Degree in Statistical Modelling and Applications	Sep. 2017 - Dec. 2020	*Evry, France*
Lycée Jeanne d'Albret, Preparatory Class for High Scientific School	Sep. 2016 - Jul. 2017	*St Germain, France*
Lycée Jacques Amyot, Preparatory Class for High Scientific School	Sep. 2015 - Jul. 2016	*Melun, France*
National Advanced School of Engineering, Mathematics and Computer Science	Sep. 2012 - Jul. 2015	*Ydé, Cameroon*
High School Degree in Science, Mathematics and Physics	Sep. 2007 - Jul. 2012	*Ydé, Cameroon*

Work Experience

Groupe BPCE — *Paris, France*

Quantitative Risk Researcher — *Mar. 2021 - Ongoing*

- I am conducting research on the projection of portfolio risk parameters for very long time horizons with application to climate transition risk.
- Explore and build Climate-Economic models by using Stochastic General Equilibrium, Agent-based modeling and Mean Field Games approaches.

LexiFi — *Paris, France*

Quantitative Researcher Intern — *May. 2020 - Nov. 2020*

- I have used Deep Learning to predict and rebuild Implied Volatility Surfaces from historical spot and forwards series, for illiquid, proprietary or OTC options.
- I developped a new GAN called CRS GAN to generate Implied Volatility Sufaces, essential for Options Pricing and Portfolio scenario analysis.

Planète-Urgence — *Ebodjé, Cameroon*

Volonteer — *Aug. 2019 - Sep. 2019*

- I learned about Tubè Awù, an Association which takes care of marine biodiversity, especially marine turtles in Central Africa Coast.
- I helped Tubè Awù to improve its visibility and its communication by creating a Website, a Facebook page and a YouTube channel.

BlackRock — *Budapest, Hungary*

Summer Intern — *Jun. 2019 - Aug. 2019*

- I read scientific publications on Natural Language Processing, then on Machine Learning Classification algorithms.
- I built,then proposed to my team a strong financial documents classifier, with an accuracy of 80%, based on a training set of over 4000 features.

Robert Bosch France — *Drancy, France*

Software Developer — *Jun. 2018 - Sep. 2018*

- I developed and tested a tool named PDC FLASH to automate reprogramming and validation tests of the PSA Braking system software.
- I trained my team in the use of the tool and then wrote the necessary documentation to facilitate future maintenance.

Projects

I am implementing Trading Algorithms on Stocks (via IBKR API) and on Cryptos (via Binance API) — *Palaiseau, France*

Personal Project — *Jan. 2020 - Ongoing*

I implemented Deep and Reinforcement Learning for Black-Scholes Options Pricing and Hedging — *Palaiseau, France*

Final Project of the Master of Science | Ecole Polytechnique - ENSAE Paris — *Oct. 2019- May. 2020*

I studied the correlation between economic conditions and stock market profits (Python). — *Evry, France*

Econometrics Modelling Project | Télécom SudParis — *Oct. 2019 - Jan. 2020*

I compared statistical inference analysis and the ML models on DAX and EURO STOXX Futures. — *Evry, France*

Final Project of the Engineering Degree | Télécom SudParis — *Oct. 2019- Jan. 2020*

Skills

Key strengths	Team player, Proactive problem solver, Detail oriented, Curiosity, Efficient under pressure, Highly self-disciplined.
Programming skills	Python (advanced), VB.NET (advanced), C++(advanced), J2EE (advanced), Java, Matlab, MySQL, R , SAS
Software & Tools	Tensorflow 2, Keras, LexiFi Apropos, Python Notebook, Visual Studio, Eclipse, Matlab, R Studio, Windows, Linux
Languages	French (Native), English (Advanced), Russian (Basic)

Interests and Activities

Writer	Les Essais de Paukémil (a political philosophy book published in January 2021), and a few articles in Mathematics and Philosophy.
Curious reader	Economy (On the Principles of Political Economy and Taxation), Sociology (Capital & Ideology), History, Philosophy, etc
Regular sportsman	Regular runner, Basketball, Tennis player and supporter.
World Citizen	Travelled to Cameroon, France, Germany, Hungary, Switzerland, Luxembourg. Discovered the world through gastronomy.