Zakaria Iraqi

Quantitative researcher , OCP
DEA El Karoui

Personal Data

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Work Experience

Jan-2020 — Quantitative researcher consultant at **OCP**, Morocco.
(World's largest fertilizers company)
Quantitative studies applied to real industrial problems

- Modeling the whole supply chain of the group, and optimising It. Improved optimisation speed, and enhanced the optimisation parametrisation, allowing the decision makers to grasp more impactful parameters .
- Apply various machine learning and data analysis frameworks to solve industrial problems.

May-Nov 2019 — Quantitative Researcher associate intern at **JP¨Morgan**, Model Review , London
FX Options

- Applied Local Volatility Stochastic Volatility models for Pricing various exotic options in the FX market, using Pde and Monte Carlo methods.
- Worked on developping additional features for the LVSV model used in long dated FX options, to grasp more market parameters.
- Part of the model review team, first experience understanding the models at hand, and learning model review's best practices.

Jun-Sep 2018 — Research intern at **Two-I** , Metz

- Modelisation and prediction of markovian models for emotion propagation in crowds. . *Keywords: ABC methods, Bayesian statistics, Python, Parallel processing.*

Academic projects

July 2020- — Research on Real Time Bidding using Reinforcement to learn to learn to bid strategically and colludingly in VCG type auctions. In the process of writing and publishing a scientific article about It .

Jan-Apr 2019 — Simulation of efficient portfolio optimisation strategies at **Ecole Polytechnique** , Paris
Study various observable stock market behaviours(volatility estimation, market trends, bid-ask spreads) and use time series analysis and deep learning frameworks to detect optimal strategies.

sep 2017- May 2018 — Research Project on **Steganalysis** at **Institut Elie Cartan**, Nancy, France
Creating and developping Steganalysis frameworks based on wavelet theory
Resulted on a submitted article in steganalysis.

Education

2018-2019 — Msc in Probabilities & Finance
Ecole Polytechnique & **UPMC (DEA EL Karoui)**, Paris
Major courses: Stochastic Calculus, Market Microstructure,
Machine learning & Deep learning,
Stochastic Simulation, Science

2016-2018 — Engineering Cycle & Msc in Applied Mathematics and Finance
Mines Nancy, Nancy
Major courses : Probability, Economics, Operational Research,
Statistics, Machine learning

Languages

English: Fluent
Arabic: Mothertongue
French: Mothertongue

Computer Skills

Python (advanced: statsmodels, scipy, scikit-learn, pandas, pytorch) , C++ (advanced) , R, Matlab

Interests and Activities

Enactus Mines Nancy, Coaching of Mathematics for International Mathematical Olympiad (the most prestigious maths competition in the world), charity work.