

Ilyès Kerkeni

Paris, France

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EDUCATION

École Polytechnique (X)/Sorbonne University

M2 Probability and finance (ex DEA EL KAROUI)

09/2023 –

Paris, France

ENSTA Paris

Engineering degree - GPA=3.9/4

09/2020 –

Paris, France

Main courses: Applied Mathematics (Statistics, Probability, Markov chains, Stochastic calculus, Optimization, Martingales, Time series, Monte-Carlo Methods, Machine learning, mathematical models in finance).

PROFESSIONAL EXPERIENCE

Crédit Agricole CIB

03/2023 –

Quant-Data scientist trainee

Paris, France

- * Working side to side with the IRD exotic director trader and the head of AI GMD department to make financial market predictions and modeling.
- * Collecting and analyzing data from US insurers, forward rates, implied volatilities, and index values to anticipate and explain insurers' trading activities.

HSBC/Europlace Institut of Finance

09/2022 – 03/2023

Quantitative researcher trainee

Paris, France

- * Working with both machine learning models and multivariate rough volatility models, gaining expertise in the randomized signatures (rSig) pricing model and the quadratic Gaussian (qGauss) models
- * Developing rich models that remain numerically tractable for the fast generation of autocallable prices and sensitivities

ENSAE Paris/CREST

06/2022 – 08/2022

Quantitative researcher trainee

Paris, France

- * Exploring several approaches to estimate VaR and CoVaR using **Parametric Models, Non-parametric models, Semi-parametric models**
- * Garch models, Monte carlo simulation, resampling, bootstrapping, python/R programming.

Eruditis

06/2022 –

Freelance: Quantitative Trader (full remote)

Milwaukee, USA

- * Exploring and implementing trading strategies with ML and reinforcement learning.
- * Implementing research papers.

ACHIEVEMENTS

Research Paper

08/2022 – 03/2023

Fast Generation of Autocalls With Rough-Like Multidimensional Volatility and randomized Signature

Paris, France

- * Working paper with Stéphane Crepey and Eduardo Abi jaber
- * Contributed to the research work and participated in writing the paper, acknowledged in the publication.

PROJECTS

Team engineer project | Machine learning: classification, Sickit-learn, tensorflow, keras. 10 2021-03 2022

- * Predicting whether a person is vaccinated against H1N1 and seasonal flu with **deploying several classification models: Logistic regression, Neural Network, FastAI, XGboost, Catboost, RandomForestClassifier, Gradient Boosting Classifier.**

Predicting rent Prices 📈 | Machine learning: Regression, Sickit-learn, tensorflow, keras 05/2022-06/2022

- * Deploying several models **frequentist** (linear regression, Ridge, Lasso), **Bayesian** and **deterministic models** (neural network, SVM, KNN) with some ensemble methods (gradient boosting) .

Image classification 📷 | Deep learning, Python, C

03/2021-05/2021

- * Using neural network (CNN) capable of classifying images according to their categories.

TECHNICAL SKILLS

Programming languages and Version control: Python, R, C, C++ , SQL, Matlab, Git, GitHub, Gitlab

Microsoft Office Suite, LaTeX