# Ayoub GHRISS

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#### **EDUCATION**

ENS Cachan Oct 2017- Sept 2018

Master of Research Mathematics, Vision and Machine Learning (MVA)

- Reinforcement Learning, Probabilistic Graphical Models, Statistical Learning
- Computer Vision, Deep Learning, Speech Recognition, Audio Signal Processing

#### **Ecole Polytechnique**

Sept 2014-Sept 2017

**Applied Mathematics** 

- Polytechnicien Engineer Cycle with Major in Applied Mathematics and application in Finance.
- Stochastic Calculus for Finance, Simulation and Monte-Carlo methods, Advanced Machine Learning, Random Models for survival and ecology.

**ENSAE** ParisTech

Sept 2013-June 2014

**B.Sc. Economics and Applied Mathematics** 

• Data Analysis, Econometrics, Microeconomics, Macroeconomics

#### WORK EXPERIENCE

## Machine Learning Researcher, Internship

April - September 2018

♥ RIKEN Center, Advanced Intelligence Project, Tokyo

· Hierarchical Reinforcement Learning, Temporal Abstraction, Spectral Framework for Options Learning

## Quantitative Research Intern

April - August 2017

- Implemented a Martingale Hypothesis Control on an Economic Scenario Generator using C++.
- Reviewed and implemented models of counter-parties probability of default for an IFRS9 tool.

#### Market Data Analyst

June - August 2016

♥ Société Générale, Paris

• Developed a VBA tool to control of Guaranteed Repos for Paris' trading team.

## **PROJECTS**

#### Variance Forwards Model and Volatility Derivatives

Sept 2016- March 2017

Department of Applied Mathematics, Ecole Polytechnique

• Studying Bergomi and Rough Bergomi Models for volatility swaps.

#### An inbound call forecasting system

Sept 2016- December 2016

AXA Data Challenge, Data Science and Mining Team

• Predicting the number of incoming calls for the AXA call center in France, on a per half-hour time slot basis.

# Optimization of EDF's technicians circuit in France

June 2015 - May 2016

**EDF** 

• Worked on developing a JAVA application. In charge of mathematical modelling and exploring open source solutions.

#### **SKILLS**

Python C/C++ Matlab VBA Java PHP Machine Learning Algorithmics Statistics Photo Editing

## **LANGUAGES**

Arabic Native French Native

English Fluent

**Japanese** Elementary proficiency

# **EXTRACURRICULARS**



Consulting for Safran cooperatives in Taliouine, Morocco



Debating Club. Head Delegate, Bonn Model United Nations 2015