

# Ayoub GHRISS

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aghriss.github.io

FR, MA

## EDUCATION

University of Colorado, Boulder

Jan 2019- 2024

PhD Candidate, Machine Learning

- Advisor: Claire Monteleoni
- Unsupervised Learning: Deep Learning for Spectral Representation, Dictionary Learning.

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

- Polytechnician Engineer Cycle with Major in Applied and Computational Mathematics.
- 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

- Deep Hierarchical Reinforcement Learning, Spectral Framework for Option Learning

Quantitative Researcher, Internship

April - August 2017

Mazars, London

- 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, Internship

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.

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



X-MicroFinance Club

Consulting for Safran cooperatives in Taliouine, Morocco



X On the MUN Club

Debating Club. Head Delegate, Bonn Model United Nations 2015