

# Saad Labyad

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## Education

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### University of Oxford

Oxford, United Kingdom

*PhD in Mathematics*

Sep 2018 - Jul 2022

“Statistical Learning in Market Microstructure” supervised by Prof. Álvaro Cartea and Prof. Samuel Cohen. Funded by the Ioan and Rosemary James / Mathematical Institute Scholarship.

Relevant Coursework and Reading Groups: Algorithmic Foundations of Learning, Rough Paths and Data Science, Theories of Deep Learning, Topological Data Analysis, Numerical Linear Algebra.

### University of Oxford

Oxford, United Kingdom

*Master of Science in Mathematical and Computational Finance, with Distinction*

Sep 2017 - Jul 2018

Thesis: “Topological Persistence in Market Microstructure”, supervised by Prof. Samuel Cohen and Prof. Heather Harrington.

Relevant Coursework: Stochastic Calculus, Stochastic Control, Optimization, Time Series, Machine Learning, Algorithmic Trading, Market Microstructure, Exotic Derivatives, Fixed Income, Commodities, Asset pricing.

### Ecole Centrale Paris

Paris, France

*Master of Engineering, Applied Mathematics, GPA: 4.11/4.33 (top 3%)*

Sep 2015 - Jul 2017

Relevant Coursework: Advanced Probability, Advanced Statistics, PDE, Differential Equations and Dynamic Systems, Theoretical Computer Science, Algorithms and Object-oriented Programming, Advanced Economics, Risk Management.

### Lycée Masséna

Nice, France

*Classes Préparatoires, Pure Mathematics and Physics (MPSI & MP\*)*

Sep 2012 - Jul 2015

Relevant Coursework: Real and Complex Analysis, Number Theory, General Topology, General Algebra, Linear Algebra.

## Experience

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### University of Oxford

Oxford, United Kingdom

*Graduate Teaching Assistant, Mathematical Institute*

Oct 2018 - Present

- Stochastic Calculus, Stochastic Control, Algorithmic Trading, Market Microstructure, Exotic Derivatives.
- Led admission interviews for applicants to MSc in Mathematical and Computational Finance.

### Ecole Centrale Paris

Paris, France

*Research Assistant, LGI laboratory*

Nov 2016 - Aug 2017

- Co-authored a working paper with Prof. Mehdi Senouci, “Deriving multiple-input production and utility functions from elasticities of substitution functions” <hal-01866275> (2018).

### My Job Glasses

Paris, France

*Student Algorithm Developer*

Sep 2016 - Jun 2017

- Led a 4 members team for myjobglasses.com, a startup connecting students with professionals.
- Modelled and implemented Collaborative Filtering and Latent Factor recommendation algorithms for the startup.

## Projects

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### Ecole Centrale Paris

Paris, France

*Student Researcher, Recurrent Neural Network for statistical arbitrage*

Apr 2017 - Aug 2017

- Developed and trained a Recurrent Neural Network with TensorFlow on 1.5 million orders on the BNP Paribas LOB.

### IBM France

Paris, France

*Student Consultant, Big Data algorithms for Next Best Offer in banking*

Sep 2015 - Jun 2016

- Analyzed and implemented Big Data algorithms for CRM in the banking industry.

## Skills

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### Languages

English (Fluent), French (Mother Tongue), Arabic (Mother Tongue), Spanish (Working Proficiency).

### Programming

Python (Advanced), R (Basic), C++ (Basic).

## Activities

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**Musical Production:** Composing on the audio workstation FL Studio for 8 years, aiming for the release of an E.P.

**Screenplay Writing:** Short film writing and dialogue analysis for 10 years, studied with French director Philippe Sisbane.

**Salsa:** Member of the Cuban Salsa Club of Ecole Centrale Paris and practicing at the University of Oxford.