

# Raymond Ji

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## EDUCATION

**University of California, Berkeley - Haas School of Business**

Mar. 2019 – Mar. 2020

Master of Financial Engineering, GPA 3.9/4.0

**Ecole Centrale Paris, France**

Sep. 2015 – Jun. 2019

MSc. of Science in Applied Mathematics – Finance, GPA 4.0/4.0

Ranked among top 3% candidates in the national entrance exams

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## SKILLS

**Mathematics:** Probability and Statistics, Linear Regression, Time Series, Optimization, Stochastic Calculus.

**Finance:** CFA Level I passed. Options Pricing, Fixed Income, Dynamic Asset Management

**Machine Learning:** Random Forest, Clustering, Lasso & Ridge Regression, Neural Networks, NLP

**Programming:** Excellent in Python, VBA, C++, SQL and KDB/Q. Skilled in TensorFlow, Scikit-learn, SciPy, NumPy

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## PROJECTS

**Citadel West Coast Data Open** 1<sup>st</sup> place / 600 participants from top US universities

Jan. 2020

- Studied NYC bike-share system ridership and validated key findings through rigorous statistical testing
- Built a multi-factor regression model to predict demand in undeveloped areas with R-squared > 0.8

**Heterogenous Impact of Monetary Policies** thesis supervised by Dr. Amir Kermani

Jan. 2020 – Mar. 2020

- Applied factor analysis to disentangle short-term monetary policy shocks following FOMC announcements
- Developed regression models to explain sources of heterogeneous behavior for each sector and asset class

**Creation of a market sentiment indicator** with research laboratory MICS, France

Sep. 2018 - Feb. 2019

- Implemented web-crawling algorithms to extract textual data from local newspapers
- Applied Natural Language Processing methods to compute daily topic distribution
- Created a Recurrent Neural Network based on topic distribution to predict market sentiment
- Designed an indicator to predict French stock market volatility

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## EXPERIENCE

**Morgan Stanley**

NYC, New York

Fixed Income Associate

May 2020 – Present

Fixed Income Fall Associate

Oct. 2019 – Jan. 2020

- Calibrated a double-exponential jump diffusion process on asset price dynamics using MLE methods
- Created a reverse repurchase agreement pricing model accounting for credit spread and Wrong Way Risk
- Designed an interactive dashboard for daily P&L tracking using JavaScript, HTML5 and CSS3
- Implemented an unsupervised record linkage algorithm to generate Machine Learning training dataset

**Amazon**

Paris, France

Junior Data Analyst

Jan. 2018 – Jul. 2018

- Created procedures to improve pricing automation and competition monitoring
- Closely monitored the daily pricing procedure to ensure company policies are followed
- Built a model to forecast 2018 French summer sales using SQL server 2016
- Automated and managed countrywide pricing performance dashboards using SQL and VBA

**Commerzbank**

London, United Kingdom

Intern, Equity Derivatives SalesTrader

Jul. 2017 – Dec. 2017

- Conceived a structured product pricing interface using Excel VBA and C++
- Priced a wide range of products such as Phoenix-Autocalls for institutional clients
- Booked trades from Hong Kong, Korean and European offices on a daily basis

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## EXTRACURRICULAR ACTIVITIES

Chess, Poker, Fitness training