Raymond Ji

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EDUCATION

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

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, SQL, C++ and KDB/Q. Skilled in TensorFlow, Scikit-learn, SciPy, NumPy

PROJECTS

Citadel West Coast Data Open 1st 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 - Present*
- Applied factor analysis to disentangle short-term monetary policy market shocks after 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

EXPERIENCE

Morgan Stanley NYC, New York
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, HTML and CSS
- Implemented an unsupervised matching algorithm to extract pricing information from a public exchange database as basis for LSTM training

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

EXTRACURRICULAR ACTIVITIES

Chess, Poker, Fitness training