RUI (RAY) JIANG

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EDUCATION

NEW YORK UNIVERSITY New York, NY

The Courant Institute of Mathematical Sciences

MS in Mathematics in Finance (expected – Dec. 2018)

- ***Current Coursework:*** algorithmic trading, hidden Markov models, mean-variance optimization, Black-Scholes formula, Ito's formula, Greeks, Monte Carlo method, CAPM, Black-Litterman model, scientific computing in Python, PCA, EM algorithm, market microstructure

ILLINOIS WESLEYAN UNIVERSITY Bloomington, IL

BA in Mathematics and History, *magna cum laude* (2013 – 2017)

- ***Coursework:*** wavelet analysis, B splines, numerical methods, combinatorics

EXPERIENCE

Capstone Investment Advisors, LLC New York, NY

Quantitative Strategist Intern (Jun. 2018 – Aug. 2018)

- Created a regime-classifying model (trending and mean-reverting regimes) by calculating half-life from OU process, and backtested it with equity and future contract indices
- Researched over 20 technical indicators to construct strategies for straddles, and built a daily-updated backtest live monitor to present PNLs and other necessary statistical results with all technical strategies across indices
- Generated trading signals with technical indicator scores, backtesting results and statistics with machine learning models (Lasso, Random Forest, and etc.) for straddles
- Built CNN and RNN with technical indicator scores into the regime-classifying model to identify regimes, and constructed a trading strategy with Hidden Markov Model
- Assisted in building local database by systematically pulling a large amount of Bloomberg data fast with Bloomberg Desktop API instead of Bloomberg Server API

Capstone Investment Advisors, LLC New York, NY

Part-Time Intern (Feb. 2018 – Apr. 2018)

- Analyzed statistics based on historical and implied volatilities to generate trading signals for straddles with technical indicators and their combos, and applied machine learning techniques (OLS, ridge regression, SVR, random forest and gradient boost) for volatility prediction

CreditEase Wealth Management Beijing, China

VC/PE Summer Analyst (Jul. 2017 – Aug. 2017)

- Oversaw management of offshore FoFs, including 8 global private equity funds, through due diligence, reference check and on-going monitoring on 8 global funds for venture capitals
- Contributed to quarterly and semi-annual reports about invested GPs and startups

PROJECTS

NEW YORK UNIVERSITY New York, NY

Algorithmic Trading and Quantitative Strategies with Impact Model (Python) (Spring 2017)

- Calculated and analyzed return-based statistics of high-frequency TAQ data for S&P 500 constituents
- Implemented Almgren-Chriss impact model, and used non-linear regression to determine parameters and market impact within 10-day trailing window
- Built a kernel-based market impact model and calibrated model parameters to some stock prices

ILLINOIS WESLEYAN UNIVERSITY Bloomington, IL

Irregular Triangulation of Spline Functions and Wavelet Functions *(1st Author)* (2015 – 2017)

- Built algorithms to construct spline functions and wavelet functions over irregular triangulations in Barycentric coordinates in one and higher dimensions with respect to Berstein-Bezier polynomials with Matlab
- Presented the results at *The 3rd International Symposium on Riordan Arrays and Related Topics*

COMPUTER SKILLS/OTHER

Programming and Software: Python, Java, MATLAB, Mathematica, R, Tableau

Skills: Mandarin (native), English (fluent)