Jiahui Xia

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EDUCATION

Boston University, Questrom School of Business — Boston, MA

M.S. Mathematical Finance [GPA 3.76] — Expected Jan. 2018

- Relevant Courses: Stochastic Methods of Asset Pricing, Stochastic Optimal Control and Investments, Programming for Mathematical Finance (Python, C++), Algorithmic Trading (MATLAB), Computational Methods, Statistical Methods in Finance, Fixed Income Securities

Zhejiang University — Hangzhou, China

B.A. Economics [GPA 3.76] [GRE 327/340] [GMAT 750/800] — Jul. 2015

- Relevant Courses: Financial Engineering, C Programming, Calculus, Probability, Statistics, ODEs, Matrix Analysis, Database System, Econometrics

PROFESSIONAL EXPERIENCE

PhoenixTree Capital — Shanghai, China

Analyst Intern — Summer 2015

- Built a database of investment events in the healthcare and education industries, including contact information for related companies, to be used for business development
- Collaborated with teams on setting target funding amounts, planning revenue goals and developing funding plans for clients

Deloitte Touche Tohmatsu CPA Ltd — Shanghai, China

Enterprise Risk Services Summer Intern — Summer 2014

- As the on-site investigator, supervised clients' business development meetings and reported daily to team leaders to ensure accurate updates in databases in three pharmaceutical conglomerates' compliance programs

PROJECT EXPERIENCE

Stochastic Optimal Control Application in Pairs Trading (MATLAB) — Apr. - May 2017

- Investigated two co-integrated assets and derived the optimal controls in closed form
- Implemented numerical experiments to simulate price, inventory, trading strategy and terminal wealth, offered financial explanations of the strategy and terminal wealth behavior

Analysis of Market Microstructure Based on High Frequency Data (MATLAB) — Feb. - Mar. 2017

- Estimated daily rate of arrival of market orders with millisecond-level Limit Order Book data of Intel
- Transformed daily data into half-hour data, applied the same methodology to calculate rate of arrival of market orders, and constructed linear regression models to validate predictability of those rates

Monte Carlo Simulation Pricing for Options (Python & C++) — Oct. - Dec. 2016

- Implemented Monte Carlo simulation in Python and C++ to calculate prices of European options, Asian options and look-back options, analyzed implementation efficiency and compared with theoretical values from Black-Scholes formula

Stock Return Analysis (R) — Oct. - Nov. 2016

- Used daily and monthly stock returns data from 1999 to 2015 to calculate VaR and test for normality of stock returns. Calculated sample standard deviation using rolling window estimator and risk metrics estimator

Web Scraping and Data Mining (Python) — May - Sept. 2016

- Scraped over 100k records of second hand home sales from the largest real estate website in China
- Constructed a batch processing geographic info parser using Baidu Map API: enter real estate names in Chinese, it'll automatically calculate distances between given places and 3 landmark buildings

ADDITIONAL INFORMATION

Technical Skills: Python, MATLAB, R, C++, LaTeX, MongoDB, Bloomberg, MS Excel

Languages: Mandarin (native), English

Interests: Marathon (4:57:17@2014, 5:42:28@2015), Reading (Fictions)