Di (Patrick) Lu

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Sept. 1, 2017

Belvedere Trading, LLC
10 South Riverside Plaza #2100
Chicago, IL 60606, USA

Dear hiring manager,

I am applying for the Options Volatility Quantitative Analyst Intern Position. As a first-year master's student in the University of Michigan's Quantitative Finance and Risk Management program with experience in strategy research and coding skills, I am interested in this opportunity to gain experience in option trading and modelling. The following skills and experiences will make me an asset to your team:

- **Familiarity with financial products:** During my internship at China Securities Strategy Research team, I prepared weekly market tracking report including all market indices from Asian, European and U.S. stock market. Based on that, I backtested common strategies with SAS to track their recent market performance. This hands-on experience helped me establish understanding of the market and products and honed my research skills with quantitative tools.
- **Experience with cultivating trading strategy:** My work experience at Huisheng-Guanghua Research Fund gave me the opportunity to translate cutting-edge academic findings into practice. One of my major contributions was testing the effectiveness of the Beneish M-score as a trading signal in Chinese market. I ran the strategy on the Ricequant platform to find that it was not effective as a single indicator but could become effective combined with other items. I would use this experience to assist in creating new strategy as part of your team at Belvedere.
- **Ability to handle large datasets:** Having worked on a data analysis project, I feel confident in my ability to handle with large datasets in R, draw statistical inference, and run models to determine most significant KPI indices. Starting with raw data in the operation system, I went through data cleaning and merging processes to make datasets ready for use and ran tentative progression at weekly meetings for discussion. I feel very comfortable dealing with data and will be an asset in the attempted and exploratory research process.

I hope to bring these skills and experiences to work with the options team at of Belvedere Trading. I look forward to talking with you about the internship and its expected role in contributing to Belvedere's team-oriented and innovative culture. Please feel free to contact me by phone or email.

Sincerely,
Patrick Lu

Di (Patrick) Lu

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EDUCATION

University of Michigan Ann Arbor, MI
Master of Science in Quantitative Finance and Risk Management *Sept.2017 - Dec.2018*

- Key Courses: Stochastic Analysis for Finance, Computational Finance, Applied Statistics, Advanced Financial Mathematics, Continuous Optimization, Machine Learning

Peking University Beijing
Bachelor of Economics in Finance, Minor in Psychology *Sept.2013 - Jul.2017*

- Cumulative GPA: 3.6/4.0, Merit Student at Guanghua School of Management(*top 5%*)
- Selected Coursework: Analysis of Financial Time Series, Mathematical Finance, Fixed Income Securities, Quantamental Investment, Financial Derivatives
- Thesis: Long Term Abnormal Return of High Split Ratio Stocks on Chinese A share Market

PROFESSIONAL EXPERIENCE

China Securities Beijing
Strategy Research Intern *Sept.2016 - Dec.2016*

- Contributed to macro hedging strategy report by collecting macroeconomic data, conducting Excel Visualization for foreign currency flow, commodity price trends, and main economic indices
- Conducted consumer industry research; computed relative strength analysis of CSI consumer index, made scenario analysis and earnings forecasts
- Utilized SAS to examine stock market mean reversion trend and diagnose the volatility structure for trending strategy

China International Capital Corporation Beijing
Summer Analyst, FICC *Jul.2016 - Aug.2016*

- Conducted due diligence for proprietary venture lending on NEEQ market
- Designed statistical monitoring spreadsheet for techonology startups prepared statistical analysis of industry landscape and potential policy impact
- Assisted designing of Financial Structured Products by tailoring yield structure and risk characteristics to clients' needs; participated in tentative pricing and issuing project on an Exchangeable Bond

PricewaterhouseCoopers China Zhengzhou, Henan
Audit and Assurance Intern *Dec.2015 - Feb.2016*

- Performed auditing procedures for subsidiary of China State Construction Engineering Corporation, managed liquid liabilities assurance including accounts receivables, bank loans and corporate bonds

RESEARCH EXPERIENCE

Accounting Department, Business Statistics Department Peking University
Researcher, Huisheng-Guanghua Research Fund *Mar.2017 - Jun.2017*

- Extracted trading strategies by tracking frontier academic papers; backtested risk-managed momentum strategy, combined with value and quality factors, on Portfolio123 platform to attain annualized alpha 8.7% and Sharpe Ratio 1.8; conducted style analysis on Barra Portfolio Manager

Business Analytics Assistant *Mar.2017 - Jun.2017*

- Performed database merging and cleaning of KPI indices from a software company, drew statistical inference, digged into demographic factors mediation effect of employer behavior; predicted employee performance with random forest, used PCA to help improve home system and offered management suggestions

SKILLS AND INTERESTS

Skills:	CFA Level II Candidate, Python, C++, SAS, R, Bloomberg
Languages:	English (fluent), Mandarin (native)