

# Di (Patrick) Lu

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Sept. 4, 2017

Morgan Stanley

1585 Broadway, Manhattan, New York City

New York 10036, United States

Dear hiring manager,

I am applying for the Morgan Stanley Fixed Income Research Summer Analyst Program. As a first-year master's student in the University of Michigan's Quantitative Finance and Risk Management program with experience in fixed income products and research skills, I am interested in this opportunity to gain more experience in market research and trading models. The following skills and experiences will make me an asset to your team:

- ***Exposure to fixed income products:*** During my internship at China International Capital Corporation, I worked in the Financial Structure Product team to tailor fixed-income products to clients' needs. I helped communicate with the Wealth Management team on issuing project of an exchangeable bond of a private equity company. With investigation into feasibility details and tentative pricing with modelling and testing, we proposed an optimal issuing plan for the client.
- ***Ability to conduct in-depth research:*** While working with the Strategy Research team of China Securities, 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 the ability to conduct in-depth research 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 the fixed income research team.

I hope to bring these skills and experiences to work with your Fixed Income Research team. I look forward to talking with you about the internship and its expected role in contributing to Morgan Stanley's leading and innovative business. Please feel free to contact me by phone or email.

Sincerely,

Patrick Lu

# Di (Patrick) Lu

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## EDUCATION

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### 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

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### 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 technology 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

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### 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

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**Skills:** CFA Level II Candidate, Python, C++, SAS, R, Bloomberg

**Languages:** English (fluent), Mandarin (native)