Di (Patrick) Lu

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EDUCATION

University of Michigan **Sept.2017 - Dec.2018**
Master of Science in Quantitative Finance and Risk Management *GPA: 3.94/4.00*

- Selected Coursework: Stochastic Analysis for Finance, Numerical Methods, Computational Finance, Applied Statistics, Machine Learning, Data Manipulation and Analysis

Peking University **Sept.2013 - Jul.2017**
Bachelor of Economics in Finance *GPA: 3.67/4.00*

- Selected Coursework: Corporate Finance, Fixed Income Securities, Financial Derivatives

PROFESSIONAL EXPERIENCE

Morgan Stanley Capital International (MSCI) **May.2018 - Aug.2018**
Quantitative Model Validation, Summer Intern *Norman, OK*

- Fixed-Income risk calculation: studied functionality of risk models for fixed income asset classes, developed test plan and test cases for extended asset coverage, verified fomulas and numerical results
- Improvement of performance attribution model: investigated defects of handling special time or market situations, looked into root causes in calculation steps, tested resolutions for asset types including Contingent Convertible Bond and credit derivatives
- Analytical engineering: built Python validation tool to replicate the FI exposure calculation

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

- Macroeconomy weekly report: updated weekly data of macroeconomic indices, global stock markets and commodity price, prepared analysis report
- In-depth industry research: studied upgradation of household consumption, computed relative strength of consumer staple industry index, made scenario analysis and earnings forecasts

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

- Special Situation Group: Revaluated a collateral asset in an adverse scenario of company privatization to propose the safe margin for the alternative asset portfolio
- Venture lending: collected financial information of technology startups on OTC market, performed screening by ratio analysis and proposed lists of candidate companies for investment committee

RESEARCH EXPERIENCE

Michigan Quant Lab **Sept.2017 - now**
Researcher *University of Michigan*

- Implemented scalable Python modules to carve portfolio risk profile by applying monte-carlo simulation of risk factors and EWMA volatility estimation scheme
- Researched on modelling of correlated financial assets, to propose mathematical property of correlation matrix, investigate analytical and simulated default distribution of a credit basket, and look into pricing implication

SKILLS

Programming: Python, C++; Software: SAS, R, Bloomberg; Certificate: CFA Program Level II passed