

XINYU (MARK) BI

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EDUCATION

NEW YORK UNIVERSITY

New York, NY

The Courant Institute of Mathematical Sciences

MS in Mathematics in Finance (Sep 2018– Dec 2019) **GPA: 3.97/4.0**

- **Coursework:** machine learning, regressions & time series, optimization, Black-Scholes & Greeks, Monte Carlo Simulation, interest rate & Fx model, Stochastic Calculus, market microstructure

PEKING UNIVERSITY

Beijing, China

Guanghua School of Management / School of Mathematical Science

BA in Finance & BS in Mathematics (Sep 2014 – Jul 2018) **GPA: 3.84/4.0 Ranking: 5/171**

- **Coursework:** PCA, numerical methods, linear ODEs, OOP in C++, CAPM and APT models, VaR, mean-variance optimization, data structures and algorithms, Micro & Macroeconomics, accounting

EXPERIENCE

QUANTPORT, JEFFERIES

New York, NY

Quantitative Research Analyst (Feb 2020 – May 2020)

- Applied Bayesian Machine Learning algo with Variational Bayesian inference (self-written in python) on analyst recommendations dataset to forecast US stocks returns
- Developed and back-tested market-neutral quant strategies for US stock based on analyst recommendations dataset; achieved low turnover rate of 11.7% and Sharpe ratio of 1.53

AIGEN INVESTMENT MANAGEMENT

New York, NY

Quantitative Research Analyst (May 2019 – Aug 2019)

- Applied NLP/ML techniques (dictionary approach with customized wordlist and negation/adverb, doc2vec, logistic regression) to generate sentiment score for analysts' reports abstracts
- Examine the relationship between reports-generated sentiment signal and Barra residual returns to seek alpha, conditioning on factors including market cap, sectors, analysts rating etc.
- Developed NLP research tools and pipelines (whole package, 3000+ lines code) in python

UBIQUANT INVESTMENT

Beijing, China

Quantitative Research Analyst (May 2017 – Nov 2017)

- Developed and back-tested market-neutral quant strategies for China A-share stocks using key financial terms in C++; achieved annualized return of 12.3% and annualized Sharpe ratio of 7
- Researched event-driven strategies in Python: Grouped A-share stocks based on analysis of indicators (e.g. market cap), calculated each group's abnormal return for further trading strategies

BEIJING CAPITAL FUTURES

Beijing, China

Data Analyst (Jul 2016 – Aug 2016)

- Modeled volatility of commodity and financial futures through EWMA and GARCH model in R
- Calculated VaR using variance-covariance method for margin requirement determination
- Back-tested models for comparison and did t-test for validity
- Automated the volatility and VaR calculation from Excel sheets

PROJECTS

NEW YORK UNIVERSITY

New York, NY

Stock market prediction by Trump's Tweets

- Applied NLP analysis (sentiment analysis and LDA) on President Trump's Tweets to extract features and built regression models to explain/forecast S&P 500 index return and VIX change

NEW YORK UNIVERSITY

New York, NY

Options Pricing

- Implemented Monte Carlo simulation with Geometric Brownian Motion and Heston model to price European, Asian options; Least-Square MC to price American options
- Adopted the antithetic variates and control variates as variance reduction techniques in MC

COMPUTER SKILLS/OTHER

Programming Languages/Software: C/C++, Python, Java, R, matlab, Microsoft Office

Languages: Mandarin (native), English (fluent)

Awards: 2012 second Prize in Beijing of China National High School Mathematics Tournament