

ZHENGXU (ANDREW) LI

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EDUCATION

NEW YORK UNIVERSITY

New York, NY

The Courant Institute of Mathematical Sciences

MS in Mathematics in Finance (expected – Dec. 2020)

- **Current Coursework:** derivative pricing, Black-Scholes formula and applications to stochastic processes, Greeks, CAPM, mean-variance optimization, Fama-French 3-factor model, VaR, Black - Litterman, stress testing, Monte Carlo simulation, OOP in Java, test-driven development (TDD)
- **Future Coursework:** algorithmic trading, machine learning, data cleaning, applications of big data to finance, time series analysis, advanced econometrics

NEW YORK UNIVERSITY

New York, NY

BA in Mathematics and Computer Science (Sept. 2014 – May 2018)

- **Coursework:** probability, statistics, calculus, data structures and algorithms (Python, Java), dynamic programming, linear algebra, scientific computing, ODEs, discounted cash flows
- **Honors:** Phi Beta Kappa, Magna Cum Laude

EXPERIENCE

PLUSPLUS CAPITAL MANAGEMENT

Jersey City, NJ

Quantitative Research Intern (June 2018 – July 2018)

- Conducted statistical analysis in R & Excel to investigate effectiveness of various metrics (Sharpe ratio, Calmar ratio, max drawdown) as predictors of funds' future performance; analysis showed that the (worst-month return / best-month return) ratio best predicts future performance
- Built a model for Fund of Funds to predict fund performance and identify potential graveyard funds
- Cleaned and merged large sets of market raw data from 1991 to 2017

NEW YORK UNIVERSITY

New York, NY

Researcher, Advisor: Prof. Robert V. Kohn (May 2017 – Sept. 2017)

- Investigated calibration of Ross Recovery Theorem to market data and its practical value, then published a 20-page paper in SIURO and assisted in presenting research at SIAM CSE conference
- Key contribution: reduced noise by reformulating the optimization problems in the existing mathematical model, then implemented the new model in MATLAB and conducted robustness test
- Examined effectiveness of the theorem by analyzing expectations, skewness, and correlations of the SPX index distributions, and by back testing theorem-based trading strategy optimizing log-return
- Processed market data from Bloomberg, such as S&P 500 futures, options, and Treasury yields

CISDI ENGINEERING CO., LTD.

Chongqing, China

Technology Summer Intern (June 2016 – Aug. 2016)

- Contributed to model-view-controller structure by adding data query-and-summary function in Java
- Offered advice for service enhancement by conducting statistical analysis of user data in Excel
- Managed code version control using Github; debugged applications with other developers

PROJECTS

Quantitative Futures Trading Strategy (Jan. 2019 – Apr. 2019)

- Codesigned futures trading strategy based on Bollinger bands and MACD; investigated its profitability on products, such as palm oil and iron ore (36% return and 14% maximum drawdown)

The Mathematical Contest in Modeling (MCM), Meritorious Winner (Jan. 2017)

- Built a probability-based model involving car speed and reaction time to simulate the traffic flow
- Analyzed traffic throughput and cost efficiency in MATLAB, then offered advice on highway design

COMPUTER SKILLS/OTHER

Programming Languages: Python (2 years), Java (4 years), MATLAB, R, C

Other Software: Bloomberg Terminal, Github, LaTeX

Languages: Mandarin (native), English (fluent)