

JIAMING HU

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EDUCATION

- Expected 12/23 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- **Expected Coursework:** objective-oriented programming (Java), data-driven modeling in Python, stochastic calculus, time series analysis, derivatives pricing, Fama-French, Monte Carlo simulation, portfolio optimization
- 09/18 - 05/22 **NORTHEASTERN UNIVERSITY** Boston, MA
B.S. in Data Science & Mathematics
- **Coursework:** multivariate calculus, linear algebra, ordinary differential equations, law of large numbers, Markov chain, numerical analysis, supervised/unsupervised machine learning, database design (SQL and No-SQL), options pricing (binomial and Black-Scholes)
 - **Honors/Awards:** Cum Laude

EXPERIENCE

- 08/21 - 12/21 **MOYI TECH** New York, NY
(Fintech company that automates market research and data analysis)
- Quantitative Research Intern (Python)**
- Conducted industry research on technology and financial sectors in US market
 - Researched quantitative aspects of financial crises to predict future ones by analyzing transactions and other historical financial metrics (e.g., GDP growth rate, real interest rate)
 - Used existing full-fledged quantitative trading packages such as VNPY to perform backtesting, and simulated live trading on proposed strategies using Python; analyzed and reported results

PROJECTS

- 01/21 - 04/21 **NORTHEASTERN UNIVERSITY** Boston, MA
Loan Default Predictor (Machine Learning, Python)
- Collected historical loan application data and performed PCA to reduce dimensionality
 - Developed probability-based Bayesian classification model to determine whether to issue loans
 - Applied linear and non-linear regression models to predict loan amount to be issued
 - Performed cross-validation, and evaluated different models' performance by interpreting R_2 , RMSE, and profits under pre-set conditions (e.g., APR, default duration)
 - Translated statistical results into business insights and created visualized dashboard in Tableau
- 07/20 - 10/20 **Options Pricing and CBOE Options Market Efficiency (Python)**
- Detected \$1M in arbitrage opportunities due to options mispricing; tested boundary condition violations, call-put-parity, and Black-Scholes model using Python
 - Analyzed arbitrage by applying Black-Scholes model with delta-neutral strategy in different time periods and assessed its feasibility

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python (Numpy, Pandas, Scikit-learn, Matplotlib), Java, SQL, R

Languages: English (fluent), Mandarin (native)

Publication: [Option Mispricing & Arbitrage Opportunity](#), ICSET 2021 Taiwan

Activities: Discrete Structure Teaching Assistant at Northeastern University