

YUQIAN (TRUDY) LI

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EDUCATION

- Expected 12/24 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- **Expected Coursework:** OOP (Python), machine learning, data-driven modeling, stochastic processes, risk & portfolio management, financial securities & markets, asset pricing
- 09/19 - 06/23 **NANKAI UNIVERSITY** Tianjin, China
B.S. in Mathematics and Applied Mathematics, Concentration: Mathematical Finance
- **Coursework:** mathematical analysis, advanced algebra, probability, statistics, data structure & algorithms (C++), machine learning (Python), financial engineering, actuarial, investments
 - **Honors/Awards:** Graduate with Honors (top 3%), 5 fellowships in 3 years (top 5%)

EXPERIENCE

- 03/23 - 05/23, **CINDA SECURITIES** Beijing, China
01/22 - 03/22 (Asset management firm with \$10B AUM)
- Investment Management Intern (Python, MATLAB)**
- Investigated trends of 680+ convertible bonds in China from 2017 to 2022; weighted their implied volatility (IV) to monitor market IV; updated it daily for department's decision-making
 - Partnered with managers to design timing strategies based on volatility risk premium by drawing and updating IV surface of SSE 50 ETF options
 - Researched and wrote reports on 240+ bonds and REITs in China, supplying comprehensive analysis to senior management to inform their trading decisions

PROJECTS

- 02/23 - 05/23 **NANKAI UNIVERSITY** Tianjin, China
Thesis: Study on the Pricing of Snowball Structured Products (Python)
- Priced real snowball autocallable using GARCH model and Monte Carlo simulation
 - Conducted sensitivity and Greeks analysis; proposed 5 key findings on snowball products
- 05/21 - 04/22 **Quantitative Proposal for China's 1st Digital Service Taxation (Python, SPSS)** Tianjin, China
- Processed 150+ sets of panel data; developed numerical models incorporating negative externalities; recommended tax rates for both digital advertising and entire industry
 - Tested results with 2 static games of incomplete information between tax authorities and enterprises; validated low probability of tax evasion under suggested tax rates
 - Presented paper to Tianjin Tax Research Institute; ranked #1 in Economics School of Nankai; received 1st place award for Outstanding Innovative Research Projects - top 3%
- 02/22 - 02/22 **Mathematical Contest in Modeling - MCM (MATLAB)** Online
- Served as team leader, main modeler, main author, and programmer, to offer optimal water and hydropower allocation for 2 reservoirs on Colorado River serving 4 industries across 5 states
 - Collected and processed data in 10+ fields; devised allocation models with linear programming and differential equations; offered solutions considering 3 different initial scenarios
 - Analyzed sensitivity and robustness to predict follow-ups; won Finalist Award - top 2% globally
- 09/21 - 12/21 **CALIFORNIA INSTITUTE OF TECHNOLOGY** Online
Models for Derivative Pricing and their Calibration (Python)
- Analyzed traits, evolution, and markets, highlighting pros and cons of various structured products
 - Used binomial model with 3K layers to price Snowball VWO issued by Barclays Bank
 - Co-authored and published paper: [A Binomial Pricing Method for Snowball Autocallable](#)

COMPUTATIONAL SKILLS / OTHER

Programming Languages & Software: Python, C++, MATLAB, SQL, VBA, SPSS, Stata, EViews, LaTeX, MSOffice
Certificates: Machine Learning (Coursera), Python for Everybody (Coursera), NCRE Level 2, CFA Level 1 Candidate
Languages: English (fluent), Mandarin (native)