YUSHAN (CHLOE) CHEN

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EDUCATION

Expected 12/25 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance

- ***Expected Coursework:*** object-oriented programming (Java), algorithmic trading, Black-Scholes model, Fama-French, dynamic asset pricing, derivative securities, quantitative portfolio theory

08/20 - 05/24 **UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN** Champaign, IL
B.S. in Mathematics, B.S. in Statistics

- ***Coursework:*** linear algebra, differential equations, quadratic programming, real analysis, time series analysis, stochastic process, statistical modeling, numerical methods
- ***Honors/Awards:*** Dean's List, highest distinction in mathematics and highest distinction in statistics

EXPERIENCE

06/23 - 08/23 **SINOLINK SECURITIES** Shanghai, China
Investment Banking Intern (Python, Excel)

- Selected appropriate GARCH model; conducted 10,000 simulation iterations in Python to generate volatility bands of the issuing company's stock, which focused on OLED material R&D
- Forecasted future profitability ratios using linear regression model with factors including total revenue, cost of goods sold, and operating expenses
- Performed due diligence for IPOs; performed walkthrough tests to assess issuing company's financial conditions; drafted and sent external confirmation letters to suppliers and banks

06/21 - 08/21 **JILIN PROVINCE TECHNOLOGY INVESTMENT FUND** Changchun, China
Project Manager Assistant / Intern

- Executed SWOT analysis and compiled report on background investigation and financial condition; presented findings to investors during roadshow
- Conducted comparable company analysis by evaluating financial metrics such as P/E ratios, EV/EBITDA, and revenue multiples of comparable listed companies
- Undertook asset valuation for targeted companies using data from balance sheets and financial statements; calculated key financial ratios to determine returns on investment

PROJECTS

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN Champaign, IL
08/22 - 12/22 **Time Series Analysis on Global Price of Natural Gas Futures (Python, R)**

- Crawled websites with Python to extract average global prices of natural gas futures over 3 years; cleaned data by removing duplicates, standardizing formats, and validating data integrity
- Graphed time series plots to analyze reasons for price fluctuations
- Processed differencing to eliminate trends and seasonality to generate stationary models; stabilized variance of series with log transformations
- Predicted prices of natural gas in next 5 months with best fit SARIMA model

09/22 - 08/23 **Research on Quantum Error Correction**

- Represented Kraus representation and Knill-Laflamme condition in quantum error correction with linear algebra and operator theory
- Obtained noncommutative graphs by using operators on finite-dimensional Hilbert spaces and unitary representations of compact groups; constructed stabilizer formalism
- Published paper (A Note on the Stabilizer Formalism via Noncommutative Graphs)

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, R, Java
Languages: English (fluent), Mandarin (native)