YEA JUN KIM

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EDUCATION

NEW YORK UNIVERSITY New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance *(Dec 2021 – Dec 2022)*

- **Coursework:** Dynamic asset pricing, active portfolio management, market microstructure, advanced topics in equity derivatives, time series analysis, advanced statistical inference

NEW YORK UNIVERSITY New York, NY
B.A. in Mathematics, Minor in Business Studies *(Sep 2014 – Dec 2021)*

- **Graduate Coursework:** Stochastic calculus, risk and portfolio management, financial securities and markets, Black Scholes, computing in finance, Monte Carlo simulation, data driven modeling, machine learning
- **Coursework:** Regression, mathematical statistics, PDEs, probability theory, numerical analysis, OOP, data structure, economics, financial accounting, information system, operations management

EXPERIENCE

HYPHEN New York, NY
Quantitative Analyst Intern *(May 2022 – Aug 2022)*

- Constructed granular portfolios grouped by region and industry, using stocks from MSCI ACWI Index; screened portfolios to satisfy rules of Islamic compliance
- Implemented multivariable regression to predict U.S. GDP and CPI; constructed point-in-time data with vintage data
- Conducted research on applications of PCA to forecast correlations of multiple assets
- Analyzed auto-regressive factor model used to unsmooth and predict returns in private markets
- Preprocessed and handled various time-series asset data from multiple databases, such as Bloomberg, Factset

MCC ECONOMICS & FINANCE London, UK (remote)
Finance Intern *(Nov 2020 – Feb 2021)*

- Implemented beta estimation for UK energy companies using OLS, rolling OLS, and GARCH models; visualized data to enable competitive comparisons
- Collaborated on financial analysis report on UK water companies' performance
- Constructed case studies on strategic planning as well as identifying and assessing financial risk
- Researched and spot-checked gas companies' financial reports for publications

KOREA NATIONAL POLICE AGENCY Daegu, Korea
Sergeant, Analytical Assistant, Public Relations *(Aug 2015 – May 2017)*

- Conducted research on policing trends; measured public reputation of national police; monitored media
- Earned commissioner's commendation; for being #1 military police officer in public relations department
- Led and represented team of 16 administrative police officers as squad leader

PROJECTS

Momentum Investment Strategy on Cryptocurrency Portfolio *(May 2021 – Aug 2021)*

- Constructed dynamic momentum strategy portfolio based on cryptocurrencies' previous daily returns
- Selected cryptocurrencies based on their market capitalization and daily traded volumes; predicted their price trends by using divergence analysis
- Set up specific indicators to decide when to stop loss or take profit; generated 16% returns

Kimchi Premium Trading Strategy *(Feb 2021 – Mar 2021)*

- Implemented long/short trading strategy using Kimchi Premium to determine price gap among cryptocurrencies in South Korean Exchange and those outside Korea
- Researched premium movements and constantly monitored premium rates for major cryptocurrencies
- Constructed strategies for different scenarios (e.g., when premium is high or low)

Equity-Interest Rate Hybrid Option Pricing *(Nov 2020 – Dec 2020)*

- Designed option pricing model using geometric Brownian motion quantoed stock; also, Ho-Lee models that simulated LIBOR
- Used two-factor Monte Carlo simulation to conduct time-dependent simulation of stocks and interest rates

COMPUTATIONAL SKILLS/OTHER

Programming Languages: Java, Python, MATLAB, R, SQL
Languages: Korean (native), English (fluent)