Jaepil Choi

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Education

Korea Advanced Institute of Science & Technology, MSc in Financial Engineering — Mar 2024 – present

WorldQuant University, MSc in Financial Engineering — Jan 2023 – present

Seoul Nat'l University, Wooribank Training Program in Digital Finance Training — Apr 2022 – June 2022

Naver AI Boostcamp, Deep Learning & NLP Projects — Jan 2021 – June 2021

Sungkyunkwan University, BSc in Global Economics / Informatics — Mar 2013 – Aug 2020

Experience

AI Finance Research Intern, Zero One AI – Seoul, South Korea — July 2024 – Aug 2024

- Established a Quant Factor Database to streamline financial data management.
- Implemented 153 factors from AQR's study on replication crisis in finance.
- Reviewed academic papers and extracted WRDS data using official SAS code.
- Developed GPT-based specifications for paper data and automated third-party financial API documentation.
- Internship concluded due to semester commencement; plans to resume later.

MyData Junior Product Manager, Woori Bank – Seoul, South Korea — July 2022 – Feb 2024

- Developed and launched the "My Investment Story" feature using SQL and Python, achieving an 11% push notification response rate.
- Conducted A/B testing to enhance KPIs, confirming statistical significance through stratified sampling and A/A testing.
- Defined registration KPIs, authored SQL queries, and designed an admin dashboard for performance monitoring.
- Analyzed customer stock portfolios against market distributions and presented findings to internal stakeholders.

Bank Associate, Woori Bank – Seoul, South Korea — Sept 2021 – Mar 2022

- Assisted the branch head in developing a corporate loan-related KPI calculator in Excel, enhancing decision-making capabilities.
- Submitted 30+ improvement proposals covering system processes, innovative ideas, and bug reports, securing 2nd place in the company's top proposals award within 3 months of joining.

Junior Quant Researcher, HaaFor Research Korea – Seoul, South Korea — June 2020 – Nov 2020

- Conducted alternative data research on over 4,000 U.S. stocks and created novel datasets from USPTO, Seeking Alpha, Zacks News, and Robinhood user preferences, enabling the development of orthogonal alpha strategies with low correlation.
- Participated in daily frequency statistical arbitrage market-neutral long-short alpha research, applying statistical analysis and quantitative modeling to contribute to investment strategies.

CSR Specialist, Intel Corporation – Seoul, South Korea — Nov 2016 – Mar 2017

- Supported executive decision-making by researching IT education status of 200+ Korean high schools with an automated scraper.
- Reported social issues relevant to CSR programs through daily 1-2 slide PPT summaries.
- Assisted in coding education for youth using Intel-chip-based Genuino boards.
- Crawled after-school activity data for 200+ schools for pilot school selection.
- Translated activity results and manuals into English, presenting business-related issues via PPT.

Projects

kor-quant-dataloader

- Developed a low-bias Korean stock dataset package based on KRX and Naver Finance data.
- Returns various domestic stock data in 2D matrix form, including opening price, low, high, close, trading volume, market cap, PER, etc.
- Included previously delisted stocks to eliminate survivor bias.
- Implemented adjusted close correction based on reference opening price.
- Enabled data caching and delta updates for efficient data retrieval.

- Provided liquidity-based universe filtering (200, 500, 1000, 2000, etc.).

qtrsch

- Implemented Fama-French 3 factors for a 2000-stock universe based on Korean stock liquidity.
- Developed alpha strategies through news NLP signals (ongoing).
- Examined WorldQuant's group neutralization technique using Fama-French 3-factor analysis.
- Analyzed PEAD (Pre/Post Earnings Announcement Drift) phenomenon in the Korean stock market.
- Grouped similar stocks via returns correlation clustering.
- Reconstructed the KOSPI index considering stock splits.

Reconstruct Academic Paper from Scratch: Deciphering Monetary Policy Board Minutes through Text Mining Approach (BOK paper)

- Numerically measured the 'tone' of BOK MPB minutes (hawkish/dovish) using a text mining approach.
- Analyzed the relationship between BOK's policy rate and measured tone data.

Estimation of Illegal Mobile Phone Subsidies after the Regulation.

- Estimated the size of illegal mobile phone subsidies and observed the effect of the regulation by analyzing internet community forum's text data.

Technologies

Programming Languages: Python, R, Stata

Tools: MS-Office, Web Scraping, Git, Machine Learning

Languages: English (TOEIC 985, TOEIC Speaking 180), German (Zertifikat Deutsch B1), Korean (Native)

Military Service: Finished the duty, as an auxiliary riot police (Sep 2014 - June 2016)