

MINSU YEOM, CFA, FRM

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EDUCATION

COLUMBIA UNIVERSITY, DATA SCIENCE INSTITUTE

New York, NY

M.S. in Data Science (GPA 3.55/4.0)

September 2018 – December 2019 (Expected)

Coursework: Reinforcement Learning, Machine Learning (ML), Applied ML for Financial Modeling, Algorithms, Probability, Visualization, Statistical Model & Inference, Natural Language Processing, Capstone

KOREA UNIVERSITY, COLLEGE OF INFORMATICS

Seoul, KR

B.S in Computer Science and Engineering (GPA 4.15/4.5)

March 2002 – August 2006

Semester High Honors, Spring 2002; Fall 2002; Spring 2003; Fall 2003; Fall 2005; Spring 2006

EXPERIENCE

KOREA INVESTMENT MANAGEMENT

Seoul, KR

Portfolio Manager

March 2013 – July 2018

- Managed portfolios by investing in equity ETFs to beat a benchmark as a senior team member
- Strategy is based on macro analysis, quantitative models (e.g. DM/EM allocation) and qualitative sector research
- Ranked #1 out of 5 institutional peers funded by Employment Insurance Fund
- Used Bloomberg, FactSet, and PCA to analyze the equity markets and business cycle for team discussion

Risk Manager

January 2010 – February 2013

- Analyzed portfolios' ex-ante risk through the lens of multi-factor models provided by BarraOne and Bloomberg
- Wrote risk management modules using Excel and VBA (e.g. volatility decomposition and ELS pricing)
- Conducted due-diligence on nine investment managers in New York

OPERATION COMMANDS, REPUBLIC OF KOREA AIR FORCE

Osan, KR

Software Deployment Supervisor, Software Developer, 1st Lieutenant

January 2007 – December 2009

- Developed web applications running on the Struts web framework for Command and Control System

DATA SCIENCE PROJECTS OR RESEARCH TOPICS

AN APPLICATION OF A RECOMMENDATION SYSTEM IN STOCK MARKET

Columbia

July 2019 – Present

- Creating a ranked list of outperforming stocks to choose from, quantifying which factor a portfolio is skewed to, and searching similar stocks for which the same investment idea may apply. Supervised by Kriste Krstovski at CBS

GEOPOLITICAL EVENTS PROBABILITIES

Columbia

February 2019 – May 2019

- Developed a dashboard using Bokeh with consolidating and verifying existing works to predict the GBPUSD rate using sentiment scores and volumes in news articles, and option-implied volatility. Supervised by Eugene Neduv at IEOR

ALGORITHMIC COMMENTS PROCESSING

Columbia

January 2019 – May 2019

- Applied and tuned XGBoost to identify sections of official letters sent by firms to the U.S. federal government

FORECASTING P/E RATIOS IN SMALL-CAP TECH SECTOR

Columbia

January 2019 – May 2019

- Built a neural network to forecast forward P/E. Inputs: company fundamentals (e.g. Sales, COGS and etc) from WRDS

ADVERSARIAL REINFORCEMENT LEARNING IN PORTFOLIO MANAGEMENT

Columbia

September 2018 – December 2018

- Simulated competing investment strategies through continuous refinement in a virtual stock market setting. The strategies adjusted weights to different stocks over time to maximize profits github.com/my2582/Adversarial-RL

CREDENTIALS AND SKILLS

Credentials: **Chartered Financial Analyst (CFA)**, August 2016; CAIA, October 2012; FRM, April 2009

Bilingual in Finance and Data Science

Technical Skills: Python, C++, Java, D3, Bokeh, Scikit-learn, OpenAI Gym