

# 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, 1<sup>st</sup> 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 and volumes in news. Supervised by Eugene Neduv. [github.com/my2582/geopol\\_event\\_probabilities](https://github.com/my2582/geopol_event_probabilities)

### ALGORITHMIC COMMENTS PROCESSING

Columbia

January 2019 – May 2019

- Applied and tuned XGBoost to identify sections of professional letters [github.com/my2582/KPMGCapstone](https://github.com/my2582/KPMGCapstone)

### FORECASTING P/E RATIOS IN SMALL-CAP TECH SECTOR

Columbia

January 2019 – May 2019

- Built an RNN to forecast forward P/E. Inputs are from I/S or B/S (e.g Sales, COGS) [github.com/my2582/predicting\\_per](https://github.com/my2582/predicting_per)

### 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](https://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