MINSU YEOM, CFA, FRM

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EDUCATION

COLUMBIA UNIVERSITY, DATA SCIENCE INSTITUTE New York, NY
M.S. in Data Science (GPA 3.5/4.0) December 2019 (Expected)
Coursework: Machine Learning (ML), Reinforcement Learning, Deep Learning, NLP, Algorithms, ML with Probabilistic Programming, Visualization, Statistical Inference. Research Interest: Matrix Factorization, Variational Inference.

KOREA UNIVERSITY, COLLEGE OF INFORMATICS Seoul, KR
B.S. in Computer Science and Engineering (GPA 4.1/4.5) August 2006

PROFESSIONAL EXPERIENCE

KOREA INVESTMENT MANAGEMENT Seoul, KR
Portfolio Manager March 2013 – July 2018
- Ranked #1 out of 5 institutional peers. Managed portfolios comprised of ETFs since 2014; outperformed a benchmark by 4% with an IR of 2, annualized, as a senior PM of a 5-person team. AUM grown up over time to US$ 1+ billion
- Built a quantitative model (DM/EM allocation) and conducted a macro and fundamental analysis to generate alpha
- Carried out a time-series analysis statistically reliably (investment cycle indicator) github.com/my2582/macro
- Managed SMA by delegating PM roles to 10+ sub-managers globally. Chose them through an RFP process.

Risk Manager January 2010 – February 2013
- Analyzed portfolios' ex-ante risk through the lens of multi-factor models provided by BarraOne and Bloomberg PORT
- Evaluated portfolio performances using Brinson and factor-based attribution, covering equity funds and hedge funds.
- Wrote risk management modules (volatility decomposition), developed it, and adapted github.com/my2582/rms
- Conducted due-diligence on nine hedge fund managers in New York github.com/my2582/dd

OPERATIONS COMMAND, REPUBLIC OF KOREA AIR FORCE Osan, KR
Software Developer, 1st Lieutenant January 2007 – December 2009
- Developed web applications running on Struts framework for Command and Control System my2582.github.io/rokaf

RESEARCH EXPERIENCE

AN APPLICATION OF A RECOMMENDATION SYSTEM IN STOCK MARKET Columbia July 2019 – Present
- Estimating a distribution over distributions to model occurrences of outperforming stocks. Provides a flexible way of modeling stocks both entirely and individually and a way of adding new features. 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 by applying NLP to unstructured data. Supervised by professor Eugene Neduv at IEOR github.com/my2582/gep

COURSE PROJECTS

BUILDING AN FX TRADING MODEL USING DEEP LEARNING Columbia September 2019 – Present
- Building a trading agent taking an advantage of learning different schemes on different information such as bars

ALGORITHMIC COMMENTS PROCESSING Columbia January 2019 – May 2019
- Used NLP to automate sectioning PDFs by applying XGBoost 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 using TensorFlow. Inputs are from I/S or B/S 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

CREDENTIALS AND SKILLS

Credentials: **Chartered Financial Analyst (CFA)**, August 2016; CAIA, October 2012; FRM, April 2009
Programming skills: Python, C/C++, Java, D3. Bokeh, Pyro, OpenAI Gym, SQL Statistical softwares: R, EViews