YOUNGMIN HA

New Jersey City University, Harborside 2, 200 Hudson St • Jersey City, NJ 07311
yha@njcu.edu • (201) 200-2404

EXPERIENCE

2019-Present — **NEW JERSEY CITY UNIVERSITY** — **Jersey City, NJ**
Assistant Professor of Finance
- Teaching courses of financial literacy, cryptocurrency, machine learning, math, and Python

2019 — **SMARTFORECAST** — **Seoul, South Korea**
Quantitative Researcher
- Developed algorithmic trading strategies of arbitrage between dual-listed cryptocurrencies
- Developed market making strategies in cryptocurrency markets using Python

2018 — **ALGORYTHMA** — **Abu Dhabi, United Arab Emirates**
Quantitative Researcher
- Developed backtesting methods for assessing performance of mean-variance portfolios
- Conducted alpha research within UAE equities using Python and SQL
- Constructed and updated database of stock prices and financial statements using Thomson Reuters Eikon, Python, and SQL

2016-2018 — **SMARTFORECAST** — **Seoul, South Korea**
Quantitative Researcher
- Predicted weekly stock returns for asset allocation using Octave, PHP, and SQL
- Conducted alpha research within Korea and Hong Kong equities, utilizing large data sets
- Rebalanced portfolio by considering bid-ask spread and proportional transaction costs

2013 — **FNPRICING** — **Seoul, South Korea**
Quantitative Analyst
- Implemented quadrature method of Hull-White one-factor model to price single and dual range accrual notes using MATLAB and SQL
- Converted combined rate curve of deposit and interest rate swap into spot rate
- Implemented Monte-Carlo method of multi-dimensional geometric Brownian motion to price multi-asset step-down derivative-linked securities using MATLAB and SQL

2008-2011 — **AGENCY FOR DEFENSE DEVELOPMENT** — **Daejeon, South Korea**
Researcher
- Conducted computer simulations using interactions among MATLAB, C++, and Simulink to reduce development time of visual tracking module in F-16 reconnaissance pod system
- Analyzed data stream among three subsystems to find data corruption using MATLAB and C++; discovered error and presented information to project manager
- Analyzed compressed images in terms of image quality using MATLAB, and optimized JPEG 2000 image compression parameters

EDUCATION

UNIVERSITY OF GLASGOW — **Glasgow, Scotland**
Adam Smith Business School
PhD in Quantitative Finance, November 2017
- Research areas: online portfolio selection, algorithmic trading
- PhD thesis: machine learning in quantitative finance (http://theses.gla.ac.uk/8558/)

UNIVERSITY OF MICHIGAN — **Ann Arbor, MI**
Master of Science in Financial Engineering, December 2012

POHANG UNIVERSITY OF SCIENCE AND TECHNOLOGY — **Pohang, South Korea**
Master of Science in Electronic and Electrical Engineering, February 2008
- Research areas: computer vision, artificial intelligence
- Master thesis: depth estimation from a single image in real-time

SOONGSIL UNIVERSITY — **Seoul, South Korea**
Bachelor of Engineering in Electronic Engineering, February 2006

ADDITIONAL

- Youngmin Ha and Hai Zhang, Algorithmic trading for online portfolio selection under limited market liquidity. European Journal of Operational Research, 2020 https://doi.org/10.1016/j.ejor.2020.03.050
- Youngmin Ha and Hai Zhang, Fast multi-output relevance vector regression. Economic Modelling, 2019 https://doi.org/10.1016/j.econmod.2019.04.007