

Heesung Lee

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INTERESTS

Atypical Business Data Mining, Natural Language Processing, Sustainable Business, ESG, Financial Engineering

EDUCATION

Kyung Hee University

Undergraduate Student

Mar. 2014 ~ Present

Seoul, Korea

- ◆ Bachelor's Degree in Business Management, overall 3.92 (major 3.95) / 4.00
- ◆ Expected Graduation Date: Aug. 2020

Whimoon High School

High School Diploma

Mar. 2009 ~ Feb. 2012

Seoul, Korea

PUBLICATION, RESEARCH, & COURSEWORK

Kyung Hee University Center for Advanced Information Technology

Researcher (Advisor: Prof. Ohbyung Kwon)

Investigating the Impact of Corporate Social Responsibility on Firm's Short/Long-term Performance through Online Text Analytics

Spring 2015 ~ Fall 2016

Seoul, Korea

First Author

- **ABSTRACT (Excerpt)**
Keywords related to CSR are extracted from atypical sources, such as newspapers, using text mining techniques to examine the relationship between CSR and firm performance (Lee et al., 2016).
- **PUBLICATION**
Lee, Heesung & Jin, Yunseon & Kwon, Ohbyung. (2016). Investigating the Impact of Corporate Social Responsibility on Firm's Short- and Long-Term Performance with Online Text Analytics. Journal of Intelligence and Information Systems. 22. 13-31. 10.13088/jiis.2016.22.2.013.

Working Paper: Near Real-time Prediction of Cryptocurrency Price Trend Using Extended Sentiment Analysis and Deep Learning

Summer 2019 ~ Present

Seoul, Korea

First Author

- The speculative characteristic of cryptocurrency requires quick and accurate forecasting of price fluctuation.
- Suggested a sentiment analysis and deep learning (GAN, weighted Leaky ReLU) mechanism using streaming text sources and minute-based currency price for accurate prediction.
- This work was launched and funded by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2017S1A3A2066740).
- Publication in progress.
- **Service to be officially launched in 2020 in Cointelegraph Korea**

Current Research: A Study on the Relationship between the Value of Firm and the Gapjil (갭질)

Summer 2018 ~ Present
Seoul, Korea

Co-Author

- A study on the relationship between corporate's Tobin's Q, CSR-ESG scores and corporate's Gapjil-related internet news media exposure and attention.

Current Research: On Return Seasonality

Fall 2019 ~ Present
Seoul, Korea

Co-Author

- Replicated Keloharju, Linnainmaa, and Nyberg (2016)'s work using Korean stock return data and found strong return seasonalities as well.
- The abnormal alpha of Portfolio 5 is 1.244% per month, and it appears strongly significant with t-statistic of 4.09.

Current Research: The Role and Responsibility of the Media: Investor Sentiment and IPO Stock Exchange Trends

Fall 2019 ~ Present
Seoul, Korea

Co-Author

- Researched the influence of pre-IPO (Initial Public Offering) corporations' news coverage on performance or business plan upon initial public offering and post-IPO stock return.
- Researched the influence of media tone and analysis perspective on the stock exchange trends in the market.

Pointer Network Analysis of Financial Unstructured Data and Enterprise Value

Fall 2018 ~ Winter 2018
Seoul, Korea

Co-Author

- Utilized the Pointer Network to examine and analyze the Corporate Social Responsibility of different companies. Mainly focused on analyzing unstructured data such as media reports and news articles.
- Participated in the development process of a query system by implementing the pointer network analysis

Relevant University Coursework

Kyung Hee University Courses

Spring 2014 ~ Present
Seoul, Korea

- MGMT 1001 Business Statistics
- MGMT 1004 Business Mathematics
- MGMT 2001 Management Information Systems
- MATH 1101 Calculus I
- MATH 1102 Calculus II
- MATH 113409-21001 Linear Algebra
- MATH 2501 Probability and Statistics
- MGMT 3023 Data Analytics and Management
- MGMT 4024 Management Information System Seminar
- MGMT 4027 Economics of Information and Strategy
- MGMT 7123 Econometrics (Graduate School Course)

Online Courses

Spring 2014 ~ Present

- **An Introduction to Interactive Programming in Python, Rice University**
- URL: <https://www.coursera.org/account/accomplishments/verify/ZPL9JEG7LK>

- › **Pattern Discovery in Data Mining**, *University of Illinois-Urbana Champaign*
- › URL: <https://www.coursera.org/account/accomplishments/verify/R2YJYNLLD4>
- › **Machine Learning**, *Stanford University*
- › URL: <https://www.coursera.org/account/accomplishments/verify/37XN2TZYD9GD>
- › **Neural Networks and Deep Learning**, *deeplearning.ai*
- › URL: <https://www.coursera.org/account/accomplishments/verify/GRSUVE62ZZ76>
- › **Improving Deep Neural Networks: Hyperparameter tuning, Regularization, and Optimization**, *deeplearning.ai*
- › URL: <https://www.coursera.org/account/accomplishments/verify/UD6FTFJ3KHZS>
- › **Sequence Models**, *deeplearning.ai*
- › URL: <https://www.coursera.org/account/accomplishments/verify/K2QLSKD77PA8>),

In-progress Courses

- › **Intro to Deep Learning with PyTorch**, *Udacity*
- › **Deep Learning**, *Udacity*
- › **Machine Learning for Trading**, *Udacity*

WORK EXPERIENCE & LEADERSHIP

DeepSearch Inc. (UBERPLE)

Jul. 2018 ~ Aug. 2018

Research Intern

Seoul, Korea

- › Carried out research on CSO doctorate thesis topic “Correlation between Unstructured Data in Finance and Credit Evaluation”
- › Assisted the 3rd Samsung Creative Square Fair
- › Participated in theme conceptualization project for Samsung Asset Management ETF (Exchange Traded Fund) in various fields such as secondary cell, mobile games, North Korea, and fried chicken industry.
- › Theme extraction through deep learning (CNN) and text mining.

Ministry of Foreign Affairs

Aug. 2015 ~ Jul. 2017

Military Service

Seoul, Korea

- › Worked for the Ministry of Foreign Affairs (Planning and Coordination Office, Ambassador’s Office, and Ministerial Candidate Office) during military service.
- › Assisted coordination of annual Ulchi-Freedom Guardian (UFG) exercise.
- › Assisted confirmation hearings for minister nominee Kang Kyunghwa.

Shinhan Investment Corp.

Jul. 2015

Intern

Seoul, Korea

- › Worked at the FICC department’s RP division and assisted briefing sessions about daily stock exchange trends and financial issues.
- › Worked at the Equity department’s Financial Derivative division.

Kyung Hee University Publication Support Office

Dec. 2018 ~ Feb. 2019

Lead Research Assistant

Seoul, Korea

- › Led the team of research assistants for publication of the book *IT and Business Analytics Systems in the Era of the 4th Industrial Revolution*. (ISBN 9788959727223(8959727229))
- › Took responsibility in gathering data about business analytics chapters.
- › Acknowledged as co-author with other research assistants.

Proseid (Business Studies Club) at Kyung Hee University

Mar. 2018 ~ Dec. 2018

Seminar Chief

Seoul, Korea

- › Coordinated weekly seminar plots and managed discussions during seminars.
- › Planned and Conducted the official industry case study with Asan Foundation.
 - ♦ **Case Study Clients:**

CJ 4D-Plex
GinGliders
NHN ent.
Dable
BearBetter
Simmons
NC Soft
Kolmar Korea.

HONORS & DISTINCTIONS

- Ministerial (Byeongseh Yoon) Award,** *Dec. 2016*
Ministry of Foreign Affairs *Seoul, Korea*
- For excellence in departmental duties and publication of research paper *Investigating the Impact of Corporate Social Responsibility on Firm's Short/Long-term Performance through Online Text Analytics* (Lee et al., 2016)
- Ministerial Award** *May. 2016*
Ministry of Foreign Affairs *Seoul, Korea*
- For excellence in departmental duties.
- Grand Prize** *Oct. 2019*
Kyung Hee University, Education Innovation Center *Seoul, Korea*
- For excellence in research paper publication
 - Awarded scholarship by the amount of \$250
- Academic Student Scholarship (Junior year)** *Jul. 2018*
Kyung Hee University *Seoul, Korea*
- For excellence in thesis publication
 - Award Amount: \$1,000
- Superiority Scholarship (All Semesters of Enrollment)** *Mar. 2014 ~ Present*
Kyung Hee University *Seoul, Korea*
- For excellence in academic performance with the highest GPA in the department of business management
 - Award Amount: \$3,500 * 7 Semesters
- Best Portfolio Award (Grand Prize)** *Nov. 2018*
Kyung Hee University *Seoul, Korea*
- For excellence in an academic portfolio in all Kyung Hee University departments.

TECHNICAL SKILLS

- Language Skills**
- **Native** in Korean
 - **Fluent** in English language (Reading, Writing, Listening, Speaking)
 - ♦ IBT TOEFL
 - ♦ GRE Verbal 152

Software Handling Skills

- › Python
- › R
- › STATA
- › Bloomberg Terminal
- › Thomson Reuters Eiko
- › Tableau
- › UCINET (Elementary)
- › SAS (Elementary)
- › JAVA (Elementary)

RESEARCH REFERENCES

Obyung Kwon

Professor

Kyung Hee University

Email: obkwon@khu.ac.kr

Ted Ahn, CFA, FRM

Chief Sales/Strategy Officer (CSO)

Ph.D. Candidate in Finance

DeepSearch Inc.

Email: tahn@deepsearch.com

Jaehong Park

Professor

Kyung Hee University

Email: jaehp@khu.ac.kr