

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 / 4.00 major 3.95 / 4.00
- ◆ Expected Graduation Date: Aug. 2020

Whimoon High School

High School Diploma

Mar. 2009 ~ Feb. 2012

Seoul, Korea

RESEARCH, COURSEWORK, & PUBLICATION

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

- **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.

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

Spring 2019 ~ Present

Seoul, Korea

- 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***

Sample Paper: A Study on the Relationship between the Value of Firm and ...*Summer 2018 ~ Present**Seoul, Korea*

- › Keywords: CSiR, Firm Reputation, Tobin's Q
- › Will soon be submitted and updated.

Sample Paper: On Return Seasonality*Fall 2019 ~ Present**Seoul, Korea*

- › 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.

Sample Paper: The Role and Responsibility of the Media: Investor Sentiment and IPO Stock Exchange Trends*Fall 2019 ~ Present**Seoul, Korea*

- › Researched the influence of pre-IPO (Initial Public Offering) corporations' news coverage on stock exchange trends in the market upon public offering.
- › Researched the influence of media tone (mainly press comments) 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*

- › 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 Info 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 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*.
- › Took responsibility in gathering data about business analytics chapters.
- › Acknowledged as co-author with other research assistants.

Proseed (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,

Ministry of Foreign Affairs

Dec. 2016

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

Ministry of Foreign Affairs

May. 2016

Seoul, Korea

- For excellence in departmental duties.

Grand Prize

Kyung Hee University, Education Innovation Center

Oct. 2019

Seoul, Korea

- For excellence in research paper publication
- Awarded scholarship by the amount of \$250

Academic Student Scholarship (Junior year)

Kyung Hee University

Jul. 2018

Seoul, Korea

- For excellence in thesis publication
- Award Amount: \$1,000

Superiority Scholarship (All Semesters of Enrollment)

Kyung Hee University

Mar. 2014 ~ Present

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)

Kyung Hee University

Nov. 2018

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

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Email: obkwon@khu.ac.kr

Web:

Ted Ahn

Chief Sales Officer (CSO)
Ph.D. Candidate in Finance
DeepSearch Inc.

Phone:

Email: tahn@deepsearch.com

Web:

Alpha Beta

Professor

(직위)

Kyung Hee University

Phone:

Email:

Web: