Seungwoo Han

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EDUCATION

Korea Advanced Institute of Science and Technology (KAIST), Seoul, Korea Feb. 2024 – Present
M.S. in Management Engineering (Information Systems track), GPA: 4.19/4.3
Advisor: Dr. Wonseok Oh

Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Korea Feb. 2017 – Feb. 2024
B.S. in Electrical Engineering and B.S. in Computing

Gyeonggi Science High School for the Gifted, Gyeonggi-do, Korea Mar. 2014 – Feb. 2017

RESEARCH INTERESTS

- **Substantive:** Economics of IT, Social Impact of AI, E-commerce, Digital Platforms, User-Generated Content
- **Methodological:** Causal Inference, Machine Learning, Multimodal Analysis

CONFERENCE PROCEEDINGS (the name of the presenter is underlined)

- **AI Adoption in U.S. Police Departments: Impacts on Enforcement Outcomes and Arrest Disparities** Dec. 2025
  Seungwoo Han and Wonseok Oh, *International Conference on Information Systems (ICIS) 2025*
  - Analyzed panel data from U.S. municipal police departments using fixed-effects regression methods
  - Distinguished between analytical AI tools and surveillance technologies to measure differential effects on enforcement outcomes and racial disparities
  - Found that analytical AI reduces total arrests while surveillance AI exacerbates racial disparities in specific organizational contexts

- **Multimodal Analysis in E-commerce Reviews: The Impact of Customer-Generated and Firm-Generated Images on Post-Purchase Satisfaction** Oct. 2024
  Seungwoo Han and Jeongsik Oh, *Conference on Information Systems and Technology (CIST) 2024*
  - Analyzed Amazon review data using deep learning models and natural language processing techniques for multimodal content analysis
  - Implemented the difference-in-differences methodology to establish the causal effects of image-text similarity on consumer satisfaction
  - Revealed a paradoxical finding that high similarity between customer and firm-generated content increases ratings and helpful votes while decreasing sentiment scores

RESEARCH PROJECTS

Graduate Research Project at KAIST

- **Petition Support System for Enhancing Civic Engagement** Oct. 2024 – Dec. 2024
  - Developed a predictive system to forecast public support for government petitions using sentiment analysis and machine learning on a 2,970 Korean petition dataset

- **Multimodal E-commerce Review Summarization with Firm-Generated Information (FGI) Integration** Mar. 2024 – Aug. 2024
  - Developed a multimodal review summarization method integrating firm-generated and consumer-generated content using BLIP embeddings

Undergraduate Research Project at KAIST

- **SimSearch: A Similarity Search Tool for Research Paper Abstracts using NLP** Apr. 2023 – Jul. 2023
  - Built an end-to-end similarity search tool for research papers using TF-IDF and Doc2Vec models on a 1.7M arXiv dataset

- **Stock Price Prediction using Financial Statements** Mar. 2022 – Jul. 2022
  - Built predictive models for S&P 500 stock price movements using linear regression and MLP on 900 financial statements

BOOK CHAPTERS

- Hongchul Shin, Sejun Yang, **Seungwoo Han**, Hyunmin Kang, Minseok Koh, Myungjun Song, and Yunsu Jung. (2025). "Medical School Quota Expansion Conflict: A Behavioral Economics Perspective." *In* Social Trends 2026, pp. 40–71. Purple. *(in Korean)*

- Hongchul Shin, Sejun Yang, Doyoung Kim, Junhyung Yang, Myungjun Song, Hyogeun Jang, Minseok Koh, **Seungwoo Han**, Dongwook Seo, Mina Ji, Yunsu Jung, Sejin Kim, and Chanwoo Kim. (2024). "Generative AI and Business Management." *In* Social Trends 2025, pp. 126–151. Purple. *(in Korean)*

HONORS AND AWARDS

Scholarships and Grants

- **Dean's List, Highest Honor (top 3%),** Department of Management Engineering, KAIST College of Business 2024
- **D'LIVE International Conference Presentation Grant**, KAIST College of Business 2024
  Awarded KRW 3,000,000 for conference presentation at *CIST 2024*
- **KAIST College of Business New Student Fellowship**, KAIST College of Business 2024
  Awarded KRW 3,000,000 for academic excellence and research potential

WORK EXPERIENCES

Teaching Assistant Experience (KAIST) Jun. 2024 – Present

- Consumer Behavior (Professional MBA course) Fall 2025
- Artificial Intelligence Business Strategy (Professional MBA course) Summer 2025
- Social Media and Network Analysis (Master of Information Management course) Spring 2025
- Special Topics in IT Management I <AI Deep Learning for Managers> Spring 2025
  (Master of Information Management course)
- Artificial Intelligence and Recommendation System (Digital Finance MBA course) Fall 2024
- Financial Data Mining (Digital Finance MBA course) Summer 2024

Military Service (Republic of Korea Air Force) Aug. 2018 – Jun. 2020

- Served as an English interpreter and translator
- Interpreted during ROK–U.S. combined training exercises and translated official documents

SELECTED COURSEWORK

- **Information Systems:** IT Management, Classical Readings in Information Systems Research
- **Economics:** Economics, Microeconomic Analysis, Special Topics in Management II <Behavioral Economics>
- **Econometrics & Methodology:** Panel Data Econometrics, Econometrics, Statistical Analysis Methods, Business Modeling Analysis, Research Methodology for Management
- **Mathematics & Computer Science:** Calculus I, Calculus II, Differential Equations and Applications, Linear Algebra, Probability and Random Processes, Discrete Mathematics, Data Structure, Database, Algorithms, Programming Principles, Programming Language, Machine Learning, Artificial Intelligence, Natural Language Processing

OTHER INFORMATION

Test Scores

- **GMAT Focus, Total: 735/805 (100th percentile)**
- **TOEFL iBT, Total: 114/120,** Listening: 30/30, Speaking: 29/30, Writing: 28/30, Reading 27/30

Professional Activities

- Google Developer Student Club, KAIST, Machine Learning Team Member, 2023
  Participated in Qualcomm-KAIST Hackathon, 2023

Languages

Korean (Native), English (Fluent)

Technical Skills

- Python, C/C++, STATA, R, SQL