Dongjae Kim

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EXPERIENCE

Data Engineering, Pukyong National University
- *Post-Master's Research Student*   Mar. 2026 – Present

NEWEYE Corp. Co. Ltd.
- *Internship*   Dec. 2025 – Jan. 2026
- *Data Analyst, Development Team*   Nov. 2024 – Dec. 2024

The Republic of Korea Army
- *Sergeant*   Jan. 2020 – Jul. 2021

EDUCATION

Pukyong National University   **Busan, Repulic of Korea**
M.S. in Data Engineering   Feb. 2024 – Feb. 2026
- Data Driven Decision Making Laboratory (Advisor: Prof. HyungBin Moon)
- Thesis: Consumer Decision-Making Simulation Using Persona-Based Large Language Model Agents

Pukyong National University   **Busan, Repulic of Korea**
B.B.A. in Business Administration & *B.E.* in Bigdata Convergence   Feb. 2018 – Feb. 2024
- Undergraduate Researcher, Data Driven Decision Making Laboratory (Oct. 2022 – Feb. 2024)
- Business Administration Student Council (Mar. 2018 – Feb. 2019)

PUBLICATIONS AND PRESENTATIONS (*****: corresponding author)

Publications
- **Kim, D.**, & Moon, HB.***** (2025). **The Impact of MaaS Implementation on Shared Micromobility Demand for First-and-Last-Mile Travel and Carbon Reduction**. *Innovation Studies*, 20(3), 25-48. *(KCI, In Korean)*
- **Kim, D.**, Seok, S., & Moon, HB.***** (2023). **Asset Allocation Strategy Based on News Article Sentiment Analysis Using BERT and Black-Litterman Model**. *The Korean Journal of Financial Management*, 40(5), 155-180. *(KCI, In Korean)*
- Kim, G., **Kim, D.**, An, H., Bae, S., & Moon, HB.***** (2025). **Unsupervised Learning-Based Electrical Anomaly Detection in Electric Vehicle Batteries: A Comparative Study of Charging Methods and Aging Effects**. *Korea Society of Industrial Information Systems*, 30(4), 15-25. *(KCI, In Korean)*

Conference Presentations (†: undergraduate researcher author)
- **Kim, D.**, Kim, Y.†, Kang, G.†, Shin, J., Kim, D., & Moon, HB. (2025, Nov.). ***Profiling the User of Real Estate Tax Tech Market***. Korea Data Analysis Society (KDAS), Chungbuk, Korea.
- **Kim, D.**, Kim, G.†, Kang, M.†, Keum, D., Kang, J.†, & Moon, HB. (2024, Nov.). ***Semantic Main Path Analysis Method Based on Text-Embedding to Identify Technological Trajectories: A Case Study of Smart Grid Technologies***. Korea Technology Innovation Society (KOTIS), Jeju, South Korea. [Oral Presentation]
- **Kim, D.**, Kim, G.†, & Moon, HB. (2023, Nov.). ***Analyzing Changes in MaaS Adoption Across Travel Behavior-Based Clusters: A Study Using Consensus Clustering and a Multinomial Logit Model***. Korea Society of Innovation (KSOI), Busan, South Korea. [Oral Presentation]
- Shin, J., Jang, W., Jung, S.†, **Kim, D.**, Kim, D., & Moon, HB. (2025, Nov.). *Chatbot Design for Structuring and Feedback Automation of User Input Data*. Korea Data Analysis Society (KDAS), Chungbuk, Korea.
- Kim, G., **Kim, D.**, & Moon, HB. (2025, Jul.). *The Impact of Firms' Industry 4.0 Technology Adoption Strategies on Performance: A Case Study of Domestic Manufacturing Companies*. Korea Society for Innovation Management & Economics (KOSIME), Jeju, South Korea. [Oral Presentation]
- Nam, G.†, Kang, M.†, **Kim, D.**, & Moon, HB. (2024, Nov.). *Demand Forecasting for OTT Service Platforms offering Immersive Performance Content: Analysis of the Potential to Resolve Cultural Accessibility Gaps Utilizing Innovative Technologies*. Korea Society of Innovation (KSOI), Daejeon, South Korea. [Oral Presentation]

Working Papers
- **Kim, D.**, Kim, G., Moon, HB. (Submitted). **How the adoption of MaaS can transform the transportation service market: Predicting changes in consumers' travel behavior**. *(SSCI)*

- **Kim, D.**, Moon, HB. (Submitted). **Semantic Main Path Analysis Framework using LLM-based Sentence Embedding: A Case Study of Smart Grid Technology**. *(SCIE)*
- **Kim, D.**, Moon, HB. (Work in Progress). **Consumer Decision-Making Simulation Using Persona-Based Large Language Model Agents.**

RESEARCH EXPERIENCE

Emerging Tech. & Market forecasting — Mobility / Transportation
- **Development of Technology Opportunity and Demand Forecasting Models Using Intelligent Agents**
  National Research Foundation of Korea (2025)
- **A study on consumers' behaviors for Mobility as a Service (MaaS) and socioeconomic benefits**
  National Research Foundation of Korea (2023)

Energy Tech. / Policy
- **Research on a process for analyzing digital technology convergence in the domestic and international electricity/power industries with case study**
  Korea Electrotechnology Research Institute (2024)
- **Policy advisory service for enhancing the future competitiveness of nuclear energy**
  Korea Hydro & Nuclear Power (2024)

Data-Analytics System Development
- **Development of an Automated System for Real-time User Data Analysis in Tax Solutions**
  Industry-Academia Project with NEWEYE Corp. Ltd, Pukyong National University (2025)
- **Development of a Personalized Asset Tax Solution Support Service Using AI Agents**
  Industry-Academia Project with NEWEYE Corp. Ltd, Pukyong National University (2025)

Industrial Data Analytics
- **Development of post-processing logic for measured material-property data and strategies for data utilization**
  Korea Automotive Technology Institute (2024)

HONORS & AWARDS

- **Poster Encouragement Award**, Korea Data Analysis Society — Nov. 2025
  Paper: *Profiling the User of Real Estate Tax Tech Market*
- **Poster Encouragement Award**, Korea Data Analysis Society — Nov. 2025
  Paper: *Chatbot Design for Structuring and Feedback Automation of User Input Data*
- **Creative Award**, K-Data Science Conference — Sep. 2025
  Proejct: *Intelligent Patent Convergence (IPC) Service with LLM Agent and Graph RAG*
- **Best Paper Award**, Korea Technology Innovation Society — Nov. 2024
  Paper: *Semantic Main Path Analysis Method based on Text-Embedding to Identify Technological Trajectories: A Case Study of Smart Grid Technologies*
- **Excellence Award**, Digital Smart Busan Academy — Oct. 2024
  Project: *Financial News Service with Generative AI and RAG*
- **Excellence Award**, Pukyong National University — Nov. 2022
  Project: *Selection and Analysis of Fire-Prone Areas to Enhance Fire Response Capabilities*

LICENSES & CERTIFICATES

Data Analysis
- **Advanced Data Analytics Semi-Professional (ADsP)** — Dec. 2021
  Korea Data Agency
- **SQL Developer** — Dec. 2021
  Korea Data Agency

Finance
- **Certified Investment Manager** — Dec. 2019
  Korea Financial Investment Association
- **Securities Investment Solicitor** — Oct. 2019
  Korea Financial Investment Association
- **Funds Investment Solicitor** — Sep. 2019
  Korea Financial Investment Association

Others
- **Computer Specialist in Spreadsheet & Database Level-1** — Feb. 2022
  Korea Chamber of Commerce and Industry