

# GIMIN KANG

School of Industrial and Systems Engineering  
Korea Advanced Institute of Science and Technology, Daejeon, Korea

Contact / Phone: 010-9982-4752 / E-mail: [kgm4752@kaist.ac.kr](mailto:kgm4752@kaist.ac.kr)

## Education

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### Korea Advanced Institute of Science and Technology

Daejeon, South Korea

#### B.S in Industrial and Systems Engineering

*Feb. 2017 - Present*

- Advisor: Prof. Young-Jae Jang
- Thesis: News Attention Analysis Based on Stock Price Data

### Busan-Il Science High School

Busan, South Korea

*Feb. 2015 – Feb. 2017*

## Professional Experiences

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### Hana Bank

Seoul, South Korea

#### AI Quant cell Intern

*Aug. 2023 – Feb. 2024*

- Macro Index prediction
- Fund ranking & recommendation

### Korea Institute of Science and Technology Information

Daejeon, South Korea

#### AI Technology Research Team Intern

*Apr. 2023 – Jun. 2023*

- Natural Language Processing
- Data Cleaning

## Project Experiences

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### Fund Recommendation

#### Project Member

AIQ cell, Hana Bank, Seoul, South Korea

Advisor: M.S. Gyu-Su Han, Ph. D. To-Young Kim

*Jan. 2024 – Feb. 2024*

- Predict future domestic (KOR) stock-fund ranking.
- Machine Learning

### Macro Index Prediction

#### Project Member

AIQ cell, Hana Bank, Seoul, South Korea

Advisor: M.S. Gyu-Su Han, Ph. D. To-Young Kim

*Sep. 2023 – Dec. 2023*

- Predict future financial indices.
- Machine Learning

### The Voice of ChatGPT

#### Project Member

UI Lab., KAIST, Daejeon, South Korea

Advisor: Prof. Alice Oh, Ph.D. candidate Ha-Neul Yoo

*Mar. 2023 – May. 2023*

- Train ChatGPT API with Korean dialects dataset and evaluate the performance.
- Prompt Engineering

### Financial Engineering with ML

### Project Member

Advisor: Prof. Woo-Chang Kim, Ph.D. candidate In-Su Choi

KAIST, Daejeon, South Korea

*Jan. 2023 – Oct. 2023*

- Extract the relations, attributes of financial indices and portfolio optimization with RL.
- Deep Reinforcement Learning

### Artificial Intelligence in Finance Engineering

#### Undergraduate Research Assistant

Advisor: Prof. Woo-Chang Kim, Ph.D. Mun-Ki Chung

FE Lab., KAIST, Daejeon, South Korea

*Jan. 2023 – Feb. 2023*

- Connect stock holding data to graph based SOTA Recommender system.
- Graph Neural Network, Recommender System

### Hana Bank Data Science Competition

#### Team Leader

KAIST, Daejeon, South Korea

*Nov. 2022 – Dec. 2022*

- Predict the small business personnel based on login data.
- Machine Learning, Data Science

### News Attention Analysis Based on Stock Price Data

#### Undergraduate Research Assistant

Advisor: Prof. Il-Chul Moon

AAI Lab., KAIST, Daejeon, South Korea

*Jun. 2022 – Aug. 2022*

- Figure out the relationship between news and stock price changes.
- Natural Language Processing

### Hankook Tire Project

#### Team Member

KAIST, Daejeon, South Korea

*May. 2019 – Jun. 2019*

- Solve the half-cart efficiency optimization problem.
- Linear Programming, Multi-Objective Optimization

### LEGO Factory Process Improvement Project

#### Team Member

KAIST, Daejeon, South Korea

*May. 2018 – Jun. 2018*

- Improve the performance of a manufacturing line of LEGO simulation model.
- MATLAB

## Publications

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- C2** I. C. Choi\*, W. S. Koh\*, Y. T. Jang\*, **G. M. Kang**, W. C. Kim "Curriculum Learning and Imitation Learning for Model-free Control on Financial Time-series", The Fourth Workshop of Artificial Intelligence for Time Series Analysis (AI4TS@AAAI): Theory, Algorithms, and Applications, Vancouver, Canada, Feb. 2024.
- C1** I. C. Choi\*, W. S. Koh\*, **G. M. Kang**\*, Y. T. Jang, W. C. Kim "Linear and Monotonic Statistical Dependence-Oriented Price Fluctuation Prediction via Temporal Graph Convolutional Network", The 4th Korea Artificial Intelligence Conference (KAAI), Jeju, Republic of Korea, Sep. 2023.
- G1** **G. M. Kang**\*, I. C. Moon "News Attention Analysis Based on Stock Price Data", Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Republic of Korea, Dec. 2022.

## Honors and Awards

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## Awards

- 2022 Excellence Award (2nd prize), IE Frontier, KAIST  
2022 Participation Award (3rd prize), FIELD, Korean Institute of Industrial Engineers (KIIE)

## Scholarships

- 2017-2019, **National Scholarship (\$3,000 \* 8), KAIST**  
2022 • This is a national scholarship awarded to entire KAIST students with GPA of 2.7/4.3 or higher for the semester concerned.

## Interests and Skills

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### Interests

- Financial Engineering
- Data Science and Statistics

### Course history

#### Sophomore

- Introduction to Linear Algebra
- Engineering Statistics
- Manufacturing Process Innovation
- Financial Management
- Introduction to Economics
- Production Management
- Data Structure
- Operations Research: Stochastic Models

#### Junior

- Introduction to Human Engineering
- Discrete Mathematics
- Case Studies for Industrial and Systems Engineering
- Decision Analysis and Risk Management
- Introduction to Financial Engineering
- Analysis of Weapon Systems

#### Senior

- Operations Research: Optimization
- Statistical Machine Learning
- Principles of Accounting
- Introduction to Data Science for IE

### Skills

Language	English (TOEIC / 970)
Programming	Python

## Other Activities

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**35<sup>th</sup> Air Defense Artillery Brigade Public Affairs Office**  
KATUSA (Sergeant)

Osan Air Base, South Korea  
May. 2020 – Nov. 2021

**School of Industrial and Systems Engineering Student Council**

Accounting Manager

**Student Culture and Space Committee**

Media Team Leader

KAIST, Daejeon, South Korea

*Mar. 2018 – Feb. 2020*

KAIST, Daejeon, South Korea

*Mar. 2017 – Feb. 2019*