# **MIN-SEON KIM**

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### **EDUCATION**

### North Carolina State University

• Doctor of Philosophy in Computer Science

## **Georgia Institute of Technology**

• Visiting scholar, School of Computer Science

#### SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

• Master of Science in Data Science

• Bachelor of Science in Industrial Engineering

#### NORTHUMBRIA UNIVERSITY

• Bachelor of Science in Information Technology Management (Dual-degree)

### Raleigh, NC, USA

Aug. 2025 – Present

Atlanta, GA, USA

Jun. 2024 – Aug. 2024

### Seoul, South Korea

Feb. 2023 - Aug. 2024

Mar. 2017 - Feb. 2023

Newcastle, England

Apr. 2021 - May 2023

### **PUBLICATIONS**

### **Peer-Reviewed Journal Articles**

- 1. **Kim, M. S.**, Lim, B. Y., Shin, H. S., and Kwon, H. Y. (2023). "Historical Credibility for Movie Reviews and Its Application to Weakly Supervised Classification" *Information Sciences (Impact Factor: 8.233)*.
- 2. **Kim, M. S.**, Lim, B. Y., Lee, K., and Kwon, H. Y. (2022). "Effective Model Update for Adaptive Classification of Text Streams in a Distributed Learning Environment" *Sensors (Impact Factor: 3.847)*.

### **Peer-Reviewed Conference Proceedings**

- 1. **Kim, M. S.**, Liu, L., and Kwon, H. Y. (2024). "SPrint: Self-Paced Continual Learning with Adaptive Curriculum and Memory Replay" In *Proceedings of IEEE International Conference on Big Data (BigData) 2024*.
- 2. **Kim, M. S.**, Liu, L., and Kwon, H. Y. (2024). "OL4TeX: Adaptive Online Learning for Text Classification under Distribution Shifts" In *Proceedings of IEEE International Conference on Big Data (BigData) 2024*.
- 3. **Kim, M. S.,** and Kwon, H. Y. (2022). "Distributed Classification Model of Streaming Tweets based on Dynamic Model Update" In *Proceedings of 2022 IEEE International Conference on Big Data and Smart Computing.*
- 4. **Kim, M. S.**, and Kwon, H. Y. (2021). "Data Coverage Analysis and Improvement of Real-Time Twitter Streaming" In *Proceedings of the 17th International Conference on Data Science*.
- 5. **Kim, M. S.**, Jang, J. S., and Kwon, H. Y. (2024). "A Text Similarity-Based Question-Paragraph Matching Framework for Question-Answering of Korean Machine Reading" In *Proceedings of Korea Computer Congress* 2024.
- 6. **Kim, M. S.**, and Kwon, H. Y. (2023). "Stepwise Model Update for Continual Learning of Streaming Event Classification Model" In *Proceedings of Korea Computer Congress 2023*.
- 7. **Kim, M. S.**, Lee, D. H., and Kwon, H. Y. (2022). "An Integrated Model for Bidirectional Sign Language Production and Translation" In *Proceedings of Korea Computer Congress 2022*.
- 8. Park, G. M., Park, J. H., **Kim, M. S.**, and Kwon, H. Y. (2022). "Federated Learning Algorithm based on Selective Data Acquisition on Non-IID Data" In *Proceedings of Korea Computer Congress 2022*.
- 9. **Kim, M. S.**, Lim, C. Y., Park, J. H., and Kwon, H. Y. (2021). "Distributed Learning Pipeline based on Apache Spark for Diagnosing Equipment Abnormalities" In *Proceedings of Korea Software Congress 2021*.

#### **EMPLOYMENT EXPERIENCE**

AIBIZ Global Seoul, South Korea

AI Engineer

Mar. 2025 – May 2025

- Improved anomaly detection models for semiconductor manufacturing time-series data.
- Implemented automated Root Cause Analysis using LangChain.

### Seoul National University of Science and Technology

Seoul, South Korea Mar. 2022 – Feb. 2023

Server Engineer

• Built and operated on-premises (Linux) and cloud servers (AWS).

• Set up GPU-accelerated deep learning development environments.

### **PeopleFund Company**

Back-End Developer Intern, Department of Richtalk

Seoul, South Korea Jul. 2022 – Aug. 2022

- Developed real-time stock data pipeline based on AWS MSK and MongoDB Atlas.
- Developed backend systems using Django, implementing RESTful APIs for web applications.

### **INDUSTRY PROJECTS**

### **Anomaly Detection for Outgoing Quality Control of Camera Modules**

LG Innotek

Supervisor: Hyun-Jin Choi

Mar. 2025 - Apr. 2025

- Engineered features from test logs using domain-specific filters, status normalization, and sensor calibration.
- Designed a GNN to capture relationships between sensor data and status signals for defect detection.

#### **Self-Training based Machine Learning Platform for SOAR**

AhnLab

Supervisor: Jae-Yeol Kim

Feb. 2023 - Dec. 2023

- Incrementally updated the tokenizer for newly generated web attack payloads.
- Adapted the global deep learning model with local data to improve model performance.

### Realtime Prediction of Mechanical Equipment Failure Based on Federated Learning

Kogen

Supervisor: Sung-Hoon Yoon

May 2022 – Oct. 2022

- Developed AI-based failure prediction analysis algorithm using federated learning.
- Developed out-of-distribution detection algorithms to improve prediction performance.

### **Anomaly Detection through Analysis of Large-Scale Personal Access Logs**

Samo CNS

Supervisor: Hyun-Chul Kim

Dec. 2020 - Sep. 2021

- Extracted patterns of personal access behavior and labeled log data through statistical analysis.
- Developed an unsupervised LSTM model, decomposing log data into distinct keys and parameters.

#### AWARDS AND HONORS

Graduate Merit Award Scholarship, North Carolina State University

Aug. 2025

Brain Korea 21 Scholarship, National Research Foundation of Korea

Innovation Talent Scholarship, Korean Ministry of Education

Nov. 2023/Feb. 2024/Aug. 2024

Academic Excellence Award, Seoul National University of Science and Technology

Feb. 2023 Jan. 2023

• Excellence Paper Award, Korean Institute of Information Scientists and Engineers

Jun. 2022

Academic Excellence Scholarship, Seoul National University of Science and Technology Sep. 2018/Mar. 2021/Mar. 2022