

Hyangsuk Min

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Daejeon, South Korea

OBJECTIVE

My research focuses on ensuring human-aligned and trustworthy in LLM-based summarizations. A key part of my work examines how LLMs behave when summarizing only the latest portion of a long, multi-turn dialogue, using data-centric analysis to **reveal context loss, missing dependencies, and misaligned inferences** that emerge when earlier history is no longer visible. As a future direction, I aim to build **human-aligned long-term memory management methods for LLM agents**, studying how systems should retain, forget, and retrieve information across extended interactions. By aligning memory processes with human intent and operational constraints, my work seeks to enable predictable, faithful, and robust model behavior suitable for enterprise-scale applications.

EDUCATION

• Korea Advanced Institute of Science and Technology	<i>Department of Industrial System Engineering (advisor : Prof. Hwanjun Song)</i>	Sep 2024 - Present
• Korea Advanced Institute of Science and Technology	<i>M.S., Graduate School of Data Science (advisor : Prof. Jae-Gil Lee)</i>	Mar 2020 - Aug 2022
• Kookmin University	<i>B.S., Bigdata Anaysis and Statistics</i>	Mar 2015 - Aug 2019
		Daejeon, South Korea
		Seoul, South Korea

PUBLICATIONS

- Ban, M*, Choi, J*, **Min, H***, Kim, NH., Song, H. (2025). Completing Missing Annotation: Multi-Agent Debate for Accurate and Scalable Relevance Assessment for IR Benchmarks (under review)
- Yun, T*, **Min, H***, Lee, Y., Bang, S., Song, H. (2025). Designing Human-Multi-Agent Collaboration for Fact-checking in Crowdsourced Annotation Workflows (under review)
- Min, H.**, Song, H. (2025). Streaming Dialogue Summarization: A Memory-Augmented Framework for Summarization and Evaluation. In Korea Software Congress (KSC).
- Ban, M*, Choi, J*, **Min, H***, Kim, NH., Bang, S., Song, H. (2025). BRIDGE: Toward Faithful RAG Benchmarking via Retrieval-Generation Alignment. In Proc. *the 34th ACM International Conference on Information and Knowledge Management Workshop (CIKM Workshop)*.
- Lee, Y*, Deng, J*, Kim, NH., **Min, H.**, Yun, T., Ban, M., Kim, Y., Song, H. (2025). **Towards a Holistic and Automated Evaluation Framework for Multi-Level Comprehension of LLMs in Book-Length Contexts**. In Proc, *the 2025 Conf. on Empirical Methods in Natural Language Processing (EMNLP)*.
- Yun, T., Oh, J., **Min, H.**, Lee, Y., Bang, J., Cai, J., Song, H. (2025). **ReFeed: Multi-dimensional Summarization Refinement with Reflective Reasoning on Feedback**. In Proc, *Conf on Language Modeling (CoLM)*.
- Min, H***, Lee, Y*, Ban, M., Deng, J., Kim, NH., Yun, T., Su, H., Cai, J., Song, H. (2025). **Towards Multi-dimensional Evaluation of LLM Summarization across Domains and Languages**. In Proc. *the 63rd Annual Meeting of the Association for Computational Linguistics (ACL)*.
- Min, H.**, Lee, J. (2023). **Temporal Convolutional Network-Based Time-Series Segmentation**. In Proc, *2023 IEEE Int'l Conf. on Big Data and Smart Computing*.
- Kim, D., **Min, H.**, Nam, Y., Song, H., Yoon, S., Kim, M, and Lee, J. (2022). **COVID-EENet: Predicting Fine-Grained Impact of COVID-19 on Local Economies**. In Proc. *36th AAAI Conf. on Artificial Intelligence (AAAI)*.
- Kim, M., Kang, J., Kim, D., Song, H., **Min, H.**, Nam, Y., Park, D. and Lee, J., (2020). **Hi-COVIDNet: Deep Learning Approach to Predict Inbound COVID-19 Patients and Case Study in South Korea**. In Proc. *26th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD)*.

PROFESSIONAL EXPERIENCE

• M2MCx, SW Campus, HL Mando.	<i>AI Research Engineer</i>	Oct 2022 - Aug 2024
		Pangyo, South Korea

- Worked on synthetic data generation with limited number of datasets.
- Targeted to generate new types of unseen synthetic data to supplement the concept drift in the future.
- Built CI/CD pipeline to serve a deep learning model for smart factory.
- Objected to deploy/update a deep learning model effortlessly.

• Physical Design, Uniquify

ASIC Engineer Intern

- Worked closely with overseas offices and experienced in PnR and ECO.
- Developed Perl scripts for timing reports and violation summary.

Aug 2018 - June 2019

San Jose, CA, USA

PROJECTS AND RESEARCH EXPERIENCE

• GenAI-based OEM requirements analysis and classification

HLMando

Mar 2024 - Aug 2024

Pangyo, South Korea

- Aimed to reduce manual effort in reviewing large volumes of customer requirements by enhancing LLM performance through prompt engineering and domain adaptation.
- Applied prompt engineering to unify mixed-format document content (images, text, tables) and fine-tuned an open-source LLM to classify OEM requirements and route them to the appropriate departments.

• Language-driven Synthetic Image Generation for Object Detection in Uncharted Driving Site

Dec 2023 - Feb 2024

HLMando

Pangyo, South Korea

- Developed a pipeline using text-based diffusion models to generate synthetic images for uncharted driving sites without relying on base images
- Enabled effective training of object detection models by producing realistic driving scenarios through text-driven synthetic data generation

• MLOps System for Smart Factory and Vehicle Prognostics and Health Management

Jan 2023 - Aug 2024

HLMando

Pangyo, South Korea

- Built on-premise MLOps system and developed CI/CD pipelines with automated model training, evaluation, and deployment workflows
- Enabled real-time predictions by deploying inference models to edge devices, leveraging sensor and image data for accurate diagnostics

• Synthetic Image Generation for Smart Factory Vision Inspection

Oct 2022 - Nov 2023

HLMando

Pangyo, South Korea

- Generated unseen synthetic images collected in real vehicle components using GAN
- Improved vision inspection performance by incorporating synthetic images into the training pipeline, reducing false negatives and enhancing model stability

HONORS AND AWARDS

• Graduated Cum Laude

Aug 2019

Kookmin University

- GPA: 4.4/4.5

• Merit scholarship

Sep 2015-Mar 2019

Kookmin University

- Awarded merit scholarships totaling approximately \$11,000 across 7 semesters for academic excellence
- 2 full, 5 partial scholarships.

CERTIFICATIONS

• ADP: Advanced Data Analytics Professional

07 2021

• SQLD: SQLDeveloper

04 2018

PATENT

• Method and Apparatus for Predicting Fine-Grained Impact of COVID-19 on Local Economies

Oct 19, 2022

Registration Number: 1020220134903

South Korea

SKILLS

- Programming Languages: Python (Pytorch), R
- Web Technologies: CSS, HTML
- Database Technologies: SQL
- Languages: Korean (Native), English (Intermediate)

Updated as of December 16, 2024