Nicole Hee-Yeon Kim

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Nationality: United States of America and Republic of Korea (Dual Citizenship)

RESEARCH INTEREST

Multimodal Large Language Models (LLMs); Vision–Language Models (VLMs); Image & Video Understanding; Human–AI Interaction; Multimodal Processing

EDUCATION

- **Korea Advanced Institute of Science and Technology** *Feb 2024 - Present*
  Master's Program, Department of Industrial & Systems Engineering, Overall GPA: 3.85/4.0 Daejeon, South Korea

- **Yonsei University** *Mar 2019 - Feb 2024*
  Bachelor's Program, Department of Industrial Engineering, Overall GPA: 3.70/4.0 Seoul, South Korea

RESEARCH EXPERIENCE

- **DISL Lab, Department of Industrial & Systems Engineering, KAIST** *Feb 2024 - Present*
  Master's Student Daejeon, South Korea
  - Led the research project "Robust Dataset Condensation using Supervised Contrastive Learning" as the sole first author (accepted at ICCV 2025).
  - Participated in research project "Beyond the Turing Test: Human-Level Game-Playing Agents with Generalization and Adaptation".
  - Participated in research project "Enhancing AI Model Reliability Through Domain-Specific Automated Value Alignment Assessment".
  - Currently conducting research on multimodal large language models (MLLMs).

- **MLAI Lab, Department of Applied Statistics, Yonsei University** *Sep 2023 - Feb 2024*
  Undergraduate Research Intern Seoul, South Korea
  - Designed and constructed the PlayingCard-10 dataset, a core component of "IMC: A Benchmark for Invariant Learning under Multiple Causes" (CVPR 2025 Workshop Best Paper Award).

PUBLICATIONS (Selected)

- **Kim, N.** and Song, H. (2025). Robust Dataset Condensation using Supervised Contrastive Learning. In *Proceedings of International Conference on Computer Vision (ICCV 2025)*, Accepted.

- **Kim, N.**, Choi, J., Lee, Y., Song, H. (2025). Robust Dataset Condensation via Semi-Supervised Learning. In *Proceedings of the Korea Computer Congress (KCC 2025)*, Selected for Oral Presentation.

- **Kim, N.**, Lee, Y., Song, H. (2024). Robust Dataset Condensation via Supervised Contrastive Learning. In *Proceedings of the Korea Software Congress (KSC 2024)*, Selected for Oral Presentation.

PATENT

- Patent Pending - KAIST Patent Registration ID: P2025-0286,
  Title: *Robust Dataset Condensation using Supervised Contrastive Learning.*

Scholorships

• **KAIST Support Scholarship** *Feb 2024 - Present*
Government-funded full tuition scholarship for M.S. program KAIST

• **Brain Korea 21 (BK21) Scholarship** *Feb 2024 - Present*
Government-funded research scholarship for graduate students National Research Foundation of Korea

• **Yonsei Welfare Scholarship** *Mar 2019 - Jun 2023*
Full tuition scholarship for B.S. program Yonsei University

• **University Innovation Support Scholarship** *Sep 2020 - Feb 2021*
Scholarship awarded for the development and advancement of an innovative start-up idea Yonsei University

• **Teaching Assistant Scholarship for the Data Science Program** *Dec 2020 - Feb 2021*
Teaching assistant for the Data Science program, responsible for editing and preparing lecture videos Yonsei University

Honors and Awards

• **Best Paper Award** *Jun 2025*
CVPR 2025 Workshop on Domain Generalization: Evolution, Breakthroughs, and Future Horizons

• **Outstanding Presentation Paper Award** *Jul 2024*
Korea Computer Congress 2024

• **1st Place, Promotional Video Contest** *Feb 2022*
Department of Industrial Engineering, Yonsei University

• **Yonsei Social Entrepreneurship Award** *Feb 2021*
Yonsei University

Language Proficiency

• **Languages:** Korean (Native), English (Fluent, TOEFL iBT 111)

Leadership Experience

• **Academic & Campus Life Mentor for Freshmen** *Oct 2019 - Aug 2020*
Institute for Higher Education Innovation, Yonsei University

• **Freshman Class President** *Mar 2019 - Aug 2019*
Department of Industrial Engineering, Yonsei University

Additional Publications (co-author)

• Min, H., Lee, Y., Ban, M., Deng, J., **Kim, N.**, Yun, T., Su, H., Cai, J., Song, H. (2025). Towards Multi-dimensional Evaluation of LLM Summarization across Domains and Languages. In *Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (ACL 2025)*, Main conference paper.

• Kim, T., Lee, S., Kang, J., Choi, Y., Yun, W., **Kim, N.**, Chen, Z., Xie, L., Song, K. (2025). IMC: A Benchmark for Invariant Learning under Multiple Causes. In *Proceedings of the CVPR 2025 Workshop on Domain Generalization: Evolution, Breakthroughs, and Future Horizons*, Best Paper Award.

• Oh, J., Choi, J., **Kim, N.**, Yun, T., Kwon, R., Song, H. (2025). Learning to Verify Summary Facts with Fine-Grained LLM Feedback. In *Proceedings of the 2025 International Conference on Computational Linguistics (COLING 2025)*, Selected for Oral Presentation.

• Oh, J., Choi, J., **Kim, N.**, Song, H. (2025). Improving Language Model Quality through LLM-based Fine-Grained Hallucinated Summary Generation. *Journal of Computing Practice*, vol. 31(2), pp. 91-97.

• Oh, J., Choi, J., **Kim, N.**, Song, H. (2024). Improving the Text Summary Quality Through Understanding the Hallucination Level of Summarization Using Large Language Models. In *Proceedings of the Korea Computer Congress (KCC 2024)*, Selected for Oral Presentation.