

SEUNGYEON KIM

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RESEARCH INTERESTS

World Action Model, VLA, Video Understanding

EDUCATION

Seoul National University, Seoul, Korea

Mar 2026 – Present

Ph.D. of Intelligence and Information.

- Advisor: Prof. Nojun Kwak

Sungkyunkwan University, Seoul, Korea

Mar 2022 – Feb 2026

B.A. in Applied Artificial Intelligence

GPA: 4.28/4.5 *Magna Cum Laude*

Micro Degree in Medical Artificial Intelligence

PUBLICATIONS

[c1] Unlocking the Potential of Diffusion Language Models through Template Infilling

Junhoo Lee, **Seungyeon Kim**, Nojun Kwak

ACL 2026 (<https://www.arxiv.org/abs/2510.13870>)

Oral Presentation (485/10518=4.61%)

[c2] Graph Neural Network for Cerebral Blood Flow Prediction with Clinical Datasets

Seungyeon Kim*, Wheesung Lee*, Sung-Ho Ahn, Do-Eun Lee, Tae-Rin Lee

ISBI2025 1page abstract (<https://arxiv.org/abs/2411.17971>)

[i1] Uncovering the Potential Risks in Unlearning: Danger of Monolingual Unlearning in Multilingual LLMs

Kyomin Hwang*, Hyunjin Kim*, **Seungyeon Kim**, Sunghyun Wee, Nojun Kwak

ArXiv (<https://arxiv.org/abs/2510.23949>)

[i2] Bridging the Performance Gap in Extreme Dataset Compression via Adaptive Coreset Selection

Yun Kim, **Seungyeon Kim**, Nojun Kwak

Under review

[i4] Rethinking Complexity in Video Summarization

Seungyeon Kim, Junhoo Lee, Hahyeon Choi, Yun Kim, Nojun Kwak

Under review

[i5] Clean Data Can Still Carry Backdoors: Support-Persistent Backdoors for Model Reuse

Junhoo Lee*, Baekseung Kim*, **Seungyeon Kim**, Nojun Kwak

Under review

SELECTED RESEARCH PROJECTS

World Action Models for Real-World Robotic Manipulation

July 2026 - Present

SKAI Intelligence

- Developing world action model policies for real-world robotic manipulation tasks using NVIDIA Omniverse simulations and sim-to-real transfer.

INTERNSHIPS

MIPA Lab, SNU

Jan 2025 – Feb 2026

Prof. Nojun Kwak, Department of Intelligence and Information, Seoul National University

- Conducted research on a multimodal video summarization model integrating visual, audio and text cues to generate informative summaries from raw video data.
- Currently conducting research on dataset distillation.

AI Researcher at NEAR Brain Inc.

June 2024 – Dec 2024

- Developed a GNN model to predict cerebral blood flow velocity and pressure.
- Led a collaborative project with Severance Hospital to help patients with hemifacial spasm by using AI to predict blood flow in the brain.
- Developed a 3D object detection model for identifying brain stenosis.

DSAIL Lab, SKKU

Sep 2024 – Dec 2024

Prof. Jinyoung Han, Department of Applied Artificial Intelligence, Sungkyunkwan University

- Developing a model for detecting depression in video logs by integrating text input alongside audiovisual analysis and deployed the updated model on a website.

Computational Neuroscience Lab, SKKU

Mar 2024 – May 2024

Prof. Jinseop Kim, Department of Biological Sciences, Sungkyunkwan University

- Developed an AI model using TensorFlow to detect cerebral hemorrhage.

Statistical Genetics and Data Science Lab, SNU

June 2023 – Sep 2023

Prof. Seunggeun Lee, Graduate School of Data Science, Seoul National University

- Applied PRSCs for multi-scalar decomposition to analyze breast cancer genetics, focusing on genetic factors and genotype-disease correlations.
- Focused on EHR data analysis, reviewing papers, and analyzing code for ICU readmission prediction within a month.

AWARDS & HONORS

Top 0.2% (3 of 1156), Korea Water Resources Corporation President Award, K-Water, Dacon.

2024

Top 4, Top 4 Abstract Award, The 64th Annual Meeting of the Korean Neurosurgical Society

2024

- Validation and Improvement of an AI-Driven Solution for Predicting Cerebral Blood Flow Using Brain MRA in Patients with Hemifacial Spasm: Preliminary Data

2nd place, Data Science Academic Competition, Sungkyunkwan Univ.

2023

2nd place, Crime Response Idea Contest, Sungkyunkwan Univ.

2023

Scholarship for Academic Excellence,

Project Group for Education and Research in Medical AI, Sungkyunkwan Univ.	<i>Spring 2025</i>
Deans' List, for Academic Excellence , Sungkyunkwan Univ.	<i>2023</i>
Scholarship for Academic Excellence ,	
Project Group for Education and Research in Medical AI, Sungkyunkwan Univ.	<i>Spring 2024</i>
Scholarship for Academic Results , AICOSS, Sungkyunkwan Univ.	<i>Fall 2023</i>
Scholarship for Academic Excellence , Sungkyunkwan Univ.	<i>Fall 2023</i>
Scholarship for Academic Excellence , Sungkyunkwan Univ.	<i>Fall 2022</i>

CERTIFICATIONS

AdsP, MS-AI 900, JLPT N2

EXTRACURRICULAR ACTIVITY

brAIn AI Society	<i>Sep 2024 – Present</i>
COCO AI Society	<i>Mar 2024 – June 2024</i>
CoMit Computer Algorithm Society	<i>Feb 2023 – June 2023</i>
Kingo SmartThings AIoT Society	<i>Feb 2022 – June 2022</i>
SK AI Data Academy	<i>July 2024</i>
Naver Boostcourse	<i>May 2023 – June 2023</i>