SOHEE KIM

Add: Seoul, Republic of Korea
Phone: (+82) 10-4106-6011
Email: joyhee@mli.kaist.ac.kr

RESEARCH INTERESTS:

» 3D representation learning (point cloud, 3D graph)
» Trustworthy Large Vision-Language Models (visual hallucination mitigation)
» Spatial and Physical Intelligence in Multimodal Models (spatial reasoning, world understanding)

EDUCATION:

Korea University | Bachelor's Degree — March 2018 – February 2022
1st major: Biomedical Engineering Major, 2nd major: Software Venture Convergence Major
- Dean's list (2020 Spring, 2020 Fall)
- Capstone Project (Advisor: Prof.Joon-Kyung Seong)
  » Tracing Individual Trajectory of Longitudinal Tau Spreading in Deep Latent Space
- Related Courses: Medical Imaging, Medical AI, Data Science

KAIST | Master's Degree — March 2022 – February 2024
Graduate School of AI
- **Master's Thesis (Advisor: Prof. Eunho Yang)**
  » **Progressive Curvature Encoding for 3D representation learning**

KAIST | Doctoral degree — March 2024 – February 2028 (expected)
Graduate School of AI

INDUSTRY PROJECTES:

1. **YLAB** | Cartoon to real image translation using GAN
   Research project (while at KAIST) — March 2022 – May 2022
   - Face detection of cartoon images, fine-tuning Reverse Toonification models using style mixing

2. **Hankook Tire** | Pattern Extraction for multi-task regression, using tire image and tabular data,
   Research project (while at KAIST) — June 2022 – May 2023
   - Multimodal learning using image and tabular tire data for few-shot multi-task regression task

3. **Samsung Electronics** | Predicting graph properties with few labels using Graph Neural Networks
   Research project (while at KAIST) — June 2023– February 2024
   - Jointly using abundant unlabeled data for few-shot graph property prediction

4. **Hankook Tire** | Research on Tire Performance Ranking Prediction, using tire image and tabular data,
   Research project (while at KAIST) — January 2024 – November 2024
   - Addressed the challenge of limited per-query data in learning-to-rank by exploring listwise, pairwise, and groupwise approaches for relative ranking prediction, validated with K-fold cross validation.

CONFERENCES:

1. **Tracing Individual Trajectory of Longitudinal Tau Spreading in Deep Latent Space**
   Sohee Kim, Joon-Kyung Seong, W Lee et al | Alzheimer's Association International Conference (AAIC) 2021 (Poster Presentation)
2. **Unveiling the Response of Large Vision-Language Models to Visually Absent Tokens**
   Sohee Kim*, Soohyun Ryu*, Joonghyung Park, Eunho Yang (*: equal contribution) | Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing
3. **SpatialBlock: Enhancing Spatial Intelligence in LVLMs via Synthetic Block-Stacking Problem**
   Soohyun Ryu*, **Sohee Kim***, Eunho Yang (*: equal contribution) | under-review

SOHEE KIM

AWARDS:

1st place | 12th Creative Challenger Program (CCP) February 2021

- Analyzed Alzheimer's disease patient's voice and extracted meaningful features
- Conducted research in voice analysis and Alzheimer's disease diagnosis.

2nd place | 2018 Korea University Fencing Championship November 2018

- Received silver medal in Girl's Fleuret Team Match

SKILLS:

Language

- Korean (Native)
- English
  - » British School of Paris (BSP) [March 2006 – February 2008]
  - » English Honorary Ambassador of Sehwa Girls High School [2016]
  - » Perfect score (100/100) in English for the 2018 National College Entrance Exam
  - » TOEFL 111/120

Programming

- Python 3 (high proficiency, 2+ years of experience)
- High proficiency in ML/DL frameworks and libraries
  - » pytorch, scikit-Learn

EXTRACURRICULAR ACTIVITIES:

» Korea University Fencing Club (KUFC) September 2018– August 2020

- silver medal in 2019 Korea University Fencing Championship (girl's fleuret team match)