Seonho Lee

Dual citizenship (Republic of Korea, USA) | glanceyes@kaist.ac.kr | glanceyes.github.io | linkedin (glanceyes)

Education

KAIST, Graduate of Artificial Intelligence — Mar 2024 – Feb 2026 *(expected)*
- Advisor: *Prof.* Hyunjung Shim
- GPA: 4.18/4.3
- Research area: Generative Models, Open-Vocabulary Understanding

Sogang University, BS in Computer Science and Engineering — Mar 2017 – Feb 2024
- GPA: 4.12/4.3 (2^{nd} *out of 120,* ***Summa Cum Laude***)

Sangsan High School — Mar 2014 - Feb 2017

Publications

3D-Aware Vision-Language Models Fine-Tuning with Geometric Distillation — May 2025
Seonho Lee*, Jiho Choi*, Inha Kang, Jiwook Kim, Junsung Park, Hyunjung Shim *(* indicates equal contribution)*
Under Review

What "Not" to Detect: Improving Object Detection under Negation via Reasoning and Token Merging — May 2025
Inha Kang, Youngsun Lim, Seonho Lee, Jiho Choi, Hyunjung Shim
Under Review

Fine-Grained Image-Text Correspondence with Cost Aggregation for Open-Vocabulary Part Segmentation — Jan 2025
Jiho Choi*, Seonho Lee*, Seungho Lee, Minhyun Lee, Hyunjung Shim *(* indicates equal contribution)*
CVPR 2025, arXiv:2501.09688

Scribble-Guided Diffusion for Training-free Text-to-Image Generation — Sep 2024
Seonho Lee*, Jiho Choi*, Seohyun Lim, Jiwook Kim, Hyunjung Shim *(* indicates equal contribution)*
ICIP 2025, arXiv:2409.08026

DreamCatalyst: Fast and High-Quality 3D Editing via Controlling Editability and Identity Preservation — Jul 2024
Jiwook Kim*, Seonho Lee*, Jaeyo Shin, Jiho Choi, Hyunjung Shim *(* indicates equal contribution)*
ICLR 2025, arXiv:2407.11394

Understanding Multi-Granularity for Open-Vocabulary Part Segmentation — May 2024
Jiho Choi*, Seonho Lee*, Seungho Lee, Minhyun Lee, Hyunjung Shim *(* indicates equal contribution)*
NeurIPS 2024, arXiv:2406.11384

Work Experience

Generative ML Research Intern, Snap Inc. — Jun 2025 - Sep 2025 *(expected)*
- Summer internship at Generative ML team, Santa Monica, CA
- Research on video diffusion model

Graduate Researcher, CVML Lab, KAIST Mar 2024 - Feb 2026

- Researching multi-modal AI for real-world interactions, particularly in open-vocabulary settings
- Investigating generative AI for 3D content creation and editing

Research Intern, HVCL, Korea University Jul 2022 – Aug 2022

- Developed web-based deep-learning software in analysis of pathology
- Contributed to a project in a start-up affiliated with the laboratory
- Advisor: *Prof.* Won Ki Jeong

Data Engineer, Life Planning Lab Dec 2021 – Jan 2022

- Developed back-end platform and managed database
- Created a data preprocessor on AWS and built data pipeline for dashboard

Projects

Research on 3D-aware VLM Finetuning, KAIST & Samsung Research Jun 2024 - Jun 2025

- On-going research project for industry-university coorperation

SHrack: Mobile Web Service for Real-time Exercise Count Tracking Mar 2023 - Jun 2023

- Web-based real-time video streaming service for accurate exercise count detection
- Developed a pipeline for deep learning using MobileNet and Contextual Prediction Module

RECJOON: Backjoon Online Judge Problem Solving Recommendation System Mar 2022 - Jun 2022

- Recommendation system for Baekjoon Online Judge algorithm problems
- Led a project developing a web application and designed MLOps architectures

KUVIS (Vience Canvas) Jun 2022 - Aug 2022

- Developed a baseline of parallel computing for deep learning
- Designed an architecture of visual AI programming

Honors and Awards

2nd Place on Open-Vocabulary Part Segmentation Challenge at CVPR 2024 Jun 2024

- 2nd Place Winnder both on Track 1 and 2
- 4th workshop on Open World Vision at CVPR 2024

Excellence Award in 2023 POSTECH OIBC Challenge Dec 2023

- 3rd Place (3/120) in AI Competition of Solar Power Generation Forecasting

2022 ICPC Asia Korea Regional Contest

- 48^{th} in Korea, 62^{nd} in Preliminary

Korea National Science and Technology Scholarship Mar 2019 - Dec 2023

- Spring 2019, Fall 2022, Spring 2023, Fall 2023 (*4 Semesters*)

Dean's List, Sogang University

- 1%: Spring 2018, Spring 2019, Fall 2022
- 5%: Fall 2018

Teaching Experience

Basic Computational Engineering Design, CSE2003, Sogang University Sep 2019 - Dec 2019

- Teaching Assistant

Skill Development

Naver Boostcamp AI Tech 3rd Jan 2022 - Jun 2022

- Participated in courses and competitions hosted by Upstage