# Griffin Sunho Lee (Seonho Lee)

United States of America, Republic of Korea | glanceyes@kaist.ac.kr | glanceyes.github.io | linkedin (glanceyes)

I specialize in **generative AI** and **perception**, with research spanning high-dimensional content generation and editing as well as enhanced perception via vision-language understanding. I have experience on large-scale dataset generation, distributed training pipeline design, and developing novel architectures to enhance controllability and scalability in real-world AI applications.

## Education

**KAIST**, *Master's degree*, Graduate of Artificial Intelligence                    Mar 2024 – Feb 2026
- Advisor: *Prof.* Hyunjung Shim                                                                  *(expected)*
- GPA: 4.20/4.3
- Research area: Generative AI, Vision-Language Models

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

## Publications

*: equal contribution        †: corresponding author        **C**: Conference        **P**: Preprint

**[C5] 3D-Aware Vision-Language Models Fine-Tuning with Geometric Distillation**
Seonho Lee*, Jiho Choi*, Inha Kang, Jiwook Kim, Junsung Park, Hyunjung Shim†
**EMNLP 2025 Findings**, arXiv:2506.09883

**[C4] Fine-Grained Image-Text Correspondence with Cost Aggregation for Open-Vocabulary Part Segmentation**
Jiho Choi*, Seonho Lee*, Seungho Lee, Minhyun Lee, Hyunjung Shim†
**CVPR 2025**, arXiv:2501.09688

**[C3] Scribble-Guided Diffusion for Training-free Text-to-Image Generation**
Seonho Lee*, Jiho Choi*, Seohyun Lim, Jiwook Kim, Hyunjung Shim†
**ICIP 2025**, arXiv:2409.08026

**[C2] DreamCatalyst: Fast and High-Quality 3D Editing via Controlling Editability and Identity Preservation**
Jiwook Kim*, Seonho Lee*, Jaeyo Shin, Jiho Choi, Hyunjung Shim†
**ICLR 2025**, arXiv:2407.11394

**[C1] Understanding Multi-Granularity for Open-Vocabulary Part Segmentation**
Jiho Choi*, Seonho Lee*, Seungho Lee, Minhyun Lee, Hyunjung Shim†
**NeurIPS 2024**, arXiv:2406.11384

**[P1] What "Not" to Detect: Improving Object Detection under Negation via Reasoning and Token Merging**
Inha Kang, Youngsun Lim, Seonho Lee, Jiho Choi, Junsuk Choi†, Hyunjung Shim†
**Under Review**

## Work Experience

***ML Engineer Intern*, Snap Inc.**, Generative ML Team (VideoCraft)        Jun 2025 - Sep 2025
- Created cross-reference dataset preprocessing pipeline for personalized video generation        *(Santa Monica, CA, USA)*
- Developed new model architecture with multi-subject adapters for *VideoAlchemist 2.0*

*Graduate Researcher*, **KAIST**, CVML Lab
Mar 2024 - Feb 2026
*(Seoul, Republic of Korea)*
- Researching multi-modal AI for real-world interactions in open-vocabulary settings
- Investigating generative AI for 3D content creation and editing

*Research Intern*, **Korea University**, HVCL
Jul 2022 – Aug 2022
*(Seoul, Republic of Korea)*
- Developed web-based deep-learning software in analysis of pathology
- Designed visual AI programming architecture

*Data Engineer*, **Life Planning Lab**
Dec 2021 – Jan 2022
*(Seoul, Republic of Korea)*
- Developed back-end platform and managed database
- Created a data preprocessor on AWS and built data pipeline for dashboard

## Projects

**Industrial Project on 3D-aware VLM Finetuning**, KAIST w/ **Samsung Research**
Jun 2024 - Jun 2025
- Electronic Device and Method for Operating Thereof and Storage Medium
- Korean patent (*application number* 10-2025-0109574)

**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

## Honors and Awards

**Korean Presidential Science Scholarship for Graduate Students**
Jun 2025
- Awarded by the President of Korea (*acceptance rate* 5%, 18K USD)

**2nd Place on Open-Vocabulary Part Segmentation Challenge at CVPR 2024**
Jun 2024
- 2nd Place 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 (2K USD)

**2022 ICPC Asia Korea Regional Contest**
Aug 2022
- 48th in Korea, 62nd in Preliminary

**Korea National Science and Technology Scholarship**
Mar 2019 - Dec 2023
- Spring 2019, Fall 2022, Spring 2023, Fall 2023 (*4 Semesters*, Total 16K USD)

**Dean's List, Sogang University**
- 1%: Spring 2018, Spring 2019, Fall 2022 / 5%: Fall 2018

## Skills

| | |
|---|---|
| *Languages* | Python, SQL, C++, C, JavaScript, Bash, PHP |
| *Tools* | Git, Docker, Kubernetes, AWS, Google Cloud, Shell, MLflow |
| *Libraries & Frameworks* | PyTorch, TensorFlow, Node.js, OpenGL, CUDA |