

Seonho Lee

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Education

KAIST , Graduate of Artificial Intelligence	Mar 2024 – Feb 2026 (expected)
<ul style="list-style-type: none">• Advisor: <i>Prof.</i> 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
<ul style="list-style-type: none">• GPA: 4.12/4.3 (2nd out of 120, <i>Summa Cum Laude</i>)	
Sangsan High School	Mar 2014 - Feb 2017

Publications

Fine-Grained Image-Text Correspondence with Cost Aggregation for Open-Vocabulary Part Segmentation	Nov 2024
Jiho Choi*, <u>Seonho Lee</u> *, Seungho Lee, Minhyun Lee, Hyunjung Shim (* indicates equal contribution)	
Under Review,	
Scribble-Guided Diffusion for Training-free Text-to-Image Generation	Sep 2024
<u>Seonho Lee</u> *, Jiho Choi*, Seohyun Lim, Jiwook Kim, Hyunjung Shim (* indicates equal contribution)	
Under Review, arXiv:2409.08026	
DreamCatalyst: Fast and High-Quality 3D Editing via Controlling Editability and Identity Preservation	Jul 2024
Jiwook Kim*, <u>Seonho Lee</u> *, 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*, <u>Seonho Lee</u> *, Seungho Lee, Minhyun Lee, Hyunjung Shim (* indicates equal contribution)	
NeurIPS 2024, arXiv:2406.11384	

Experience

Graduate Student AI Researcher , CVML Lab, KAIST	Mar 2024 - Feb 2026
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• Developed web-based deep-learning software in analysis of pathology• Contributed to a project in a start-up affiliated with the laboratory• Advisor: <i>Prof.</i> Won Ki Jeong	
Data Engineer , Life Planning Lab	Dec 2021 – Jan 2022
<ul style="list-style-type: none">• Developed back-end platform and managed database• Created a data preprocessor on AWS and built data pipeline for dashboard	

Projects

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: Baekjoon 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 Winner 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

- 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)

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