Seonho Lee

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Education

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

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

Sangsan High School   Mar 2014 - Feb 2017

Publications

Fine-Grained Image-Text Correspondence with Cost Aggregation for   Nov 2024
Open-Vocabulary Part Segmentation

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   Jul 2024
and Identity Preservation

Jiwook Kim*, <u>Seonho Lee</u>*, Jaeyo Shin, Jiho Choi, Hyunjung Shim *(* indicates equal contribution)*

Under Review, 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
- 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

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
- 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