

Jiwan Seo

CONTACT INFORMATION

DGIST (Daegu Gyeongbuk Institute of Science and Technology)
Artificial Intelligence
E3-319, Techno jungang-daero 333, Hyeonpung-eup,
Dalseong-gun, Daegu, Republic of Korea, 42988
Tel.: +82-10-7481-3993
E-mail: eccaron@dgist.ac.kr
Homepage: <https://seo-jiwan.github.io/>

RESEARCH INTERESTS

Computer Vision (Scene understanding, Video detection, Video segmentation)
Deep Learning (Video-text learning , Large model fine-tuning)

EDUCATION

DGIST, Daegu, Korea
M.S., Artificial Intelligence Feb 2024 – Present
• Advisor: Prof. Sung Hoon Im
Military service, Hongcheon, Korea
Sergeant, 11th Maneuver Division Feb 2019 – Sep 2020
• : Position: K53 Drvier
Yeungnam university, Gyeongsan, Korea
B.S., Electrical Engineering and Computer Science Feb 2018 – Feb 2024
• Advisor: Prof. Jong Hee Yoon

WORKS

Achievement

1. Achieved state-of-the-art (**SOTA**) performance on the long video benchmark(Youtube-VIS 2022) with 54.0 AP through tracking technology with **high temporal consistency**.
2. Achieved state-of-the-art (**SOTA**) performance on the occluded video benchmark(OVIS) with 57.1 AP by applying tracking technology with **high robustness in occluded situations**.
3. Collaborated with Kisan Electronics to develop a **fine-tuning-free** and **lightweight** object detection framework for retail, enabling automated checkout and product registration.
4. Proposed **MeViS-M**, an extension of the existing RVOS benchmark MeViS, which incorporates motion information to **address video-text misalignment issues** arising from conventional frame sampling in RVOS training.
5. Achieved state-of-the-art (**SOTA**) performance on the challenging video-text alignment benchmark (MeViS) with 51.6 AP through **motion modeling**.

PUBLICATIONS

International Conference (Co-first*)

1. Seunghun Lee*, **Jiwan Seo***, Kiljoon Han, Minwoo Choi, Sunghoon Im, “CAVIS: Context-Aware Video Instance Segmentation”, ICCV 25’
2. Seunghun Lee, **Jiwan Seo**, Minwoo Choi, Kiljoon Han, Jaegoon Jeong, Jane Durante, Ehsan Adeli, Sang Hyun Park, Sunghoon Im, “Latest Object Memory Management for Temporally Consistent Video Instance Segmentation”, ICCV 25’
3. Seunghun Lee*, **Jiwan Seo***, Junghoon Kim*, Sunghoon Im, “SAMDWICH: Moment-aware Video-text Alignment for Referring Video Object Segmentation”, Under review.
4. Sanggyun Ma, Wonjoon Choi, Jihun Park, Seunghun Lee, **Jiwan Seo**, Sunghoon Im, “Bridging Geometric and Semantic Foundation Models for Generalized Monocular Depth Estimation”, Under review.

PROJECTS	(2025)Kisan&DGIST: Development of light weight object detection model for retail products.
REVIEWER (CONFERENCE)	<ul style="list-style-type: none"> • IEEE Robotics and Automation Letters (RA-L 25')
LANG SKILLS	<ul style="list-style-type: none"> • TOEIC : 915 (Expired date: 06/25/2025) • OPIC : Intermediate High (Expired date: 08/27/2025)
IT SKILLS	<ul style="list-style-type: none"> • Languages: Python, Java, C, \LaTeX • Deep Learning Framework: Pytorch, Tensorflow

Last Update: 2025/06/17