

Geuntaek Lim

Ph.D. Student in Artificial Intelligence
Sejong University, Seoul, Republic of Korea

✉ gtlim@rcv.sejong.ac.kr | 🏠 limgeuntaekk.github.io

Updated: August 2026

RESEARCH SUMMARY

I am a Ph.D. student in Artificial Intelligence at Sejong University, advised by Prof. Yukyung Choi. My research focuses on video-centric AI modeling, reliable evaluation of video understanding, and unified approaches that connect video understanding and generation through shared temporal and semantic representations.

Research Interests: Video Understanding, Video-Language Models

EDUCATION

Ph.D. in Artificial Intelligence and Robotics

Mar. 2026 – Present

Sejong University, Seoul, South Korea

Academic Advisor: Prof. Yukyung Choi

M.S. in Artificial Intelligence and Robotics

Mar. 2023 – Feb. 2025

Sejong University, Seoul, South Korea

Overall GPA: 4.5/4.5; Academic Advisor: Prof. Yukyung Choi

M.S. Thesis: [A Study on Semantic Representation Learning for Untrimmed Video Understanding](#)

B.S. in Artificial Intelligence and Robotics

Mar. 2021 – Feb. 2023

Sejong University, Seoul, South Korea

Magna cum laude; Overall GPA: 4.15/4.5

WORK EXPERIENCE

Research Intern — Video Understanding Team

Oct. 2025 – Apr. 2026

NAVER Cloud, Seongnam, South Korea

Worked on the evaluation of video-language models. Host: Minhoo Shim

Research Intern — Video Understanding Team

Mar. 2025 – Sep. 2025

Seoul National University, Seoul, South Korea

Conducted research on video understanding. Host: Prof. Jonghyun Choi

PUBLICATIONS

[P] Preprint, [C] Conference, [J] Journal

Preprint

[P1] HypSGG: Open-Vocabulary Scene Graph Generation via Hyperbolic Representation and Hierarchical Supervision [\[pdf\]](#)

arXiv | 2026

Authors: Geuntaek Lim, Juyoung Hong, Uicheol Jung, and Yukyung Choi

Conference

[C4] MARS: What Retrieval Signals Are Hidden in Multimodal Large Language Models for Text-Video Retrieval?

EMNLP | 2026

Authors: Uicheol Jung, Juyoung Hong, Geuntaek Lim, and Yukyung Choi

[C3] Video-Oasis: Rethinking Evaluation of Video Understanding [\[pdf\]](#) [\[code\]](#)

ECCV | 2026

Authors: Geuntaek Lim, Sungjune Park, Jaeyun Lee, Inwoong Lee, Taeoh Kim, Dongyoon Wee, Minhoo Shim, and Yukyung Choi

- [C2] **Probabilistic Vision-Language Representation for Weakly Supervised Temporal Action Localization** [pdf] [code] ACM MM | 2024
Authors: Geuntaek Lim, Hyunwoo Kim, Joonsoo Kim, and Yukyung Choi
- [C1] **VVS: Video-to-Video Retrieval with Irrelevant Frame Suppression** [pdf] [code] AAAI | 2024
Authors: Won Jo, Geuntaek Lim, Gwangjin Lee, Hyunwoo Kim, Byungsoo Ko, and Yukyung Choi

Journal

- [J2] **Simultaneous Video Retrieval and Alignment** [pdf] IEEE Access | 2023
Authors: Won Jo, Geuntaek Lim, Yujin Hwang, Gwangjin Lee, Joonsoo Kim, Joungil Yun, Jiyoung Jung, and Yukyung Choi
- [J1] **Exploring the Temporal Cues to Enhance Video Retrieval on Standardized CDVA** [pdf] [code] IEEE Access | 2022
Authors: Won Jo, Geuntaek Lim, Joonsoo Kim, Joungil Yun, and Yukyung Choi

RESEARCH EXPERIENCE

- Development of MPEG CDVA-Based Multi-Machine Vision Task Software** Apr. 2023 – Nov. 2023
Sejong University; funded by ETRI
- Developed self-supervised video representation learning for multi-machine vision tasks.
 - Studied video representation learning through visual and topical consistency.
- Development of MPEG CDVA-Based Video Search Software** Apr. 2022 – Nov. 2022
Sejong University; funded by ETRI
- Developed efficient learning techniques for untrimmed video search.
 - Studied weakly supervised selection of regions of interest in videos.
 - This work contributed to a paper published in IEEE Access.
- Deep Learning Models for Extracting Visual Features by Machine Vision Task** Apr. 2021 – Nov. 2021
Sejong University; funded by ETRI
- Developed temporally robust video descriptors for content-based video retrieval.
 - Studied temporal nested-invariance pooling for the MPEG CDVA framework.
 - This work contributed to a paper published in IEEE Access.

PATENTS

- [P2] Joonsoo Kim, Joungil Yun, Geuntaek Lim, Won Jo, and Yukyung Choi, “Method and Apparatus of Image/Video Feature Descriptor Extracting for Searching Image/Video,” *U.S. Patent US12158913B2*, Dec. 2024.
- [P1] Joonsoo Kim, Joungil Yun, Geuntaek Lim, Won Jo, Yukyung Choi, and Yujin Hwang, “Method and Apparatus for Simultaneous Video Retrieval and Alignment,” *U.S. Patent Application Publication US20230177083A1*, Jun. 2023.

TEACHING EXPERIENCE

- Machine Learning and Artificial Intelligence** 2022 – 2023
Sejong University; Head TA (2023), TA (2022); Instructor: Prof. Yukyung Choi

HONORS & SCHOLARSHIPS

- Doctoral Excellence Scholarship in Science and Engineering** 2026
Korea Student Aid Foundation (KOSAF)
US\$5.4K/year