

# Geuntaek Lim

M.S STUDENT · SEJONG UNIVERSITY

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## Education

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### Sejong University

M.S IN INTELLIGENCE MECHATRONICS ENGINEERING

- Overall GPA : 4.5/4.5
- Supervised by Prof. Yukyung Choi

Seoul, South Korea

Mar.2023 - Current

### Sejong University

B.S IN INTELLIGENCE MECHATRONICS ENGINEERING

- Honors: Magna cum laude (Overall GPA : 4.15/4.5)

Seoul, South Korea

Mar.2017 - Feb.2023

## Publications

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### INTERNATIONAL CONFERENCE

#### Probabilistic Vision-Language Representation for Weakly Supervised Temporal Action Localization

Oct, 2024

**GEUNTAEK LIM**, HYUNWOO KIM, JOONSOO KIM, YUKYUNG CHOI

- The 32nd ACM Multimedia (MM 2024)
- 26.2 % acceptance rate

#### VVS: Video-to-Video Retrieval with Irrelevant Frame Suppression

Mar, 2024

WON JO, **GEUNTAEK LIM**, GWANGJIN LEE, HYUNWOO KIM, BYUNGSOO KO, YUKYUNG CHOI

- The 38th AAAI Conference on Artificial Intelligence (AAAI 2024)
- 23.6 % acceptance rate

### INTERNATIONAL JOURNAL

#### Simultaneous Video Retrieval and Alignment

Mar, 2023

WON JO, **GEUNTAEK LIM**, YUJIN HWANG, GWANGJIN LEE, JOONSOO KIM, JOUNGIL YUN, JIYOUNG JUNG, YUKYUNG CHOI

- IEEE Access
- Impact Factor : 3.367 (SCIE)

#### Exploring the Temporal Cues to Enhance Video Retrieval on Standardized CDVA

Apr, 2022

WON JO, **GEUNTAEK LIM**, JOONSOO KIM, JOUNGIL YUN, YUKYUNG CHOI

- IEEE Access
- Impact Factor : 3.367 (SCIE)

## Research Experience

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### Development of an AI Based Video Search System for Untact Content Production

Sejong Univ

FUNDED BY INSTITUTE FOR INFORMATION & COMMUNICATION TECHNOLOGY PLANNING & EVALUATION (IITP)

Apr. 2023 - Current

- Development of multimodal-based neural network technology for accurate video retrieval.
- Research based on the video-level descriptor with irrelevant frame suppression strategy.
- Part of this work was summarized in a paper and accepted to AAAI 2024.

### **Development of MPEG CDVA-based Multi-Machine Vision Task Software**

FUNDED BY ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE (ETRI)

- Development of self-supervised video representation learning for multi-machine vision task.
- Research based on the representation learning for video via visual and topical consistency.

*Sejong Univ  
Apr. 2023 - Nov. 2023*

### **Development of MPEG CDVA-based Video Search Software**

FUNDED BY ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE (ETRI)

- Development of efficient video learning techniques for untrimmed video search.
- Research based on the selection of regions of interest in videos with weakly supervised manner.
- This work was summarized in a paper and accepted to IEEE Access.

*Sejong Univ  
Apr. 2022 - Nov. 2022*

### **Next generation AI for multi-purpose video search**

FUNDED BY INSTITUTE FOR INFORMATION & COMMUNICATION TECHNOLOGY PLANNING & EVALUATION (IITP)

- Development of video search system for multi-purpose content and query support.
- Research based on the simultaneous video retrieval and alignment for multi-purpose search system.
- This work was summarized in papers and accepted to IEEE Access and AAAI 2024.

*Sejong Univ  
Apr. 2021 - Mar. 2023*

### **A Study on a Deep Learning Model for Extracting Visual Features by Machine Vision Task**

FUNDED BY ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE (ETRI)

- Development of temporal robust video descriptors for content-based video retrieval.
- Research based on the temporal nested invariance pooling for MPEG CDVA video search framework.
- This work was summarized in a paper and accepted to IEEE Access.

*Sejong Univ  
Apr. 2021 - Nov. 2021*

## Patents

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### **Method and Apparatus of Extracting Video Feature Descriptors with Distractor Frame Suppression**

YUKYUNG CHOI, WON JO, **GEUNTAEK LIM**, GWANGJIN LEE, HYUNWOO KIM

- Korea patent (applied) No. 10-2023-0177999

*Dec. 2023*

### **Video Feature Descriptors Extraction Method and Apparatus for Video Searching**

YUKYUNG CHOI, WON JO, **GEUNTAEK LIM**, GWANGJIN LEE, HYUNWOO KIM

- Korea patent (applied) No. 10-2022-0152725

*Nov. 2022*

### **Method and Apparatus for Simultaneous Video Retrieval and Alignment**

JOONSOO KIM, JOUNGLI YUN, **GEUNTAEK LIM**, WON JO, YUKYUNG CHOI, YUJIN HWANG

- U.S. patent (applied) No. 18/072,268
- Korea patent (applied) No. 10-2022-0087956

*Jul. 2022*

### **Method and Apparatus of Image Feature Descriptor Extracting For Searching Video**

JOONSOO KIM, JOUNGLI YUN, **GEUNTAEK LIM**, WON JO, YUKYUNG CHOI

- U.S. patent (applied) No. 18/298,208
- Korea patent (applied) No. 10-2022-0087969

*Jul. 2022*

## Teaching Experience

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### **Machine Learning and Artificial Intelligence**

INSTRUCTOR : PROF. YUKYUNG CHOI

- Role: Head TA

*Sejong University  
2023*

### **Machine Learning and Artificial Intelligence**

INSTRUCTOR : PROF. YUKYUNG CHOI

- Role: TA

*Sejong University  
2022*