# **Ho-Joong Kim**

### Ph.D. Candidate

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Education	
Korea University Ph.D. IN ARTIFICIAL INTELIGENCE	Mar. 2021 - PRESENT
Advisor: Seong-Whan Lee	
Hansung University	Mar. 2015 - Feb. 2021
B.S. IN INDUSTRIAL MANAGEMENT ENGINEERING AND COMPUTER ENGINEERING	
Publications	
DiGIT: Multi-Dilated Gated Encoder and Central-Adjacent Region Integrated Decoder for Temporal Action Detection Transformer	<b>CVPR</b> , 2025
Ho-Joong Kim, Yearang Lee, Jung-Ho Hong, and Seong-Whan Lee	
Comprehensive Information Bottleneck for Unveiling Universal Attribution to Interpret Vision Transformers	<b>CVPR</b> , 2025
Jung-Ho Hong, <b>Ho-Joong Kim</b> , Kyu-Sung Jeon, and Seong-Whan Lee	Highlight
TE-TAD: Towards Full End-to-End Temporal Action Detection via Time-Aligned Coordinate Expression	<b>CVPR</b> , 2024
Ho-Joong Kim, Jung-Ho Hong, Heejo Kong, and Seong-Whan Lee	
Text-Infused Attention and Foreground-Aware Modeling for Zero-Shot Temporal Action Detection	<b>NeurIPS</b> , 2024
YEARANG LEE, <b>HO-JOONG KIM</b> , AND SEONG-WHAN LEE	
Unknown-Aware Graph Regularization for Robust Semi-supervised Learning from Uncurated Data	<b>AAAI</b> , 2024
Heejo Kong, Suneung Kim, <b>Ho-Joong Kim</b> , and Seong-Whan Lee	
MIRe: Enhancing Multimodal Queries Representation via Fusion-Free Modality Interaction for Multimodal Retrieval YEONG-JOON JU, HO-JOONG KIM, AND SEONG-WHAN LEE	ACL Findings, 2025
FIQ: Fundamental Question Generation with the Integration of Question Embeddings for Video Question Answering  JUYOUNG OH, HO-JOONG KIM, AND SEONG-WHAN LEE	SMC, 2025
Ensuring Spatial Scalability with Temporal-Wise Spatial Attentive Pooling for Temporal Action Detection Ho-Joong Kim, AND SEONG-WHAN LEE	Neural Networks, 2024
Description Attribute-Enhanced Spatio-Temporal Zero-shot Action Recognition	ICPRAI, 2024
YEHNA KIM, <b>HO-JOONG KIM</b> , AND SEONG-WHAN LEE	

LAST UPDATE: JULY 17, 2025

# Enhancing Discriminative Ability among Similar Classes with Guidance of Text-Image Correlation for Unsupervised Domain Adaptation

IJCNN, 2023

Yu-Won Lee, Myeong-Seok Oh, Ho-Joong Kim, and Seong-Whan Lee

Oral

# Temporal-Invariant Video Representation Learning with Dynamic Temporal Resolutions

AVSS, 2022

Seong-Yun Jeong, **Ho-Joong Kim**, Myeong-Seok Oh, Gun-Hee Lee, and Seong-Whan Lee

Oral

# SCGN: Novel Generative Model using the Convergence of Latent Space by Training

Electronic Letters, 2020

HO-JOONG KIM, AND SUNG-HOON JUNG

### **SOGN: Novel Generative Model using Self Organizing Map**

Electronic Letters, 2019

HO-JOONG KIM, AND SUNG-HOON JUNG

# Projects\_\_\_\_\_

## Development of a General-Purpose AI Model for Industrial Safety

Sep. 2024 – Aug. 2025

MITHRIL

Developed an **open-vocabulary object detection** model capable of detecting unseen objects using linguistic information. Designed a **lightweight neural network architecture** based on the developed model.

# Video Event Detection and Recognition via Unsupervised Learning

*Mar.* 2021 – Nov. 2023

IITP

Designed an **self-supervised pre-training** model and **zero-shot action recognition** for video understanding using limited computing resources in an unsupervised learning setting.

### **Lightweight Deep Neural Networks for Mobile Edge Computing**

*Jun.* 2019 – Mar. 2020

PRIZZMABLE

Developed a model for **tooth object detection** and **plaque segmentation**. Designed **lightweight networks** optimized for deployment on **mobile and embedded devices**.

#### Awards

#### **Best Paper Award**

2019

THE INSTITUTE OF ELECTRONICS AND INFORMATION ENGINEERS SUMMER CONFERENCE

### **Best Paper Award**

2018

THE INSTITUTE OF ELECTRONICS AND INFORMATION ENGINEERS WINTER CONFERENCE

#### Patent \_

# Method and system for learning self-converging generative networks

Republic of Korea, 2023

Patent No. KR102580159B1

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