Ho-Joong Kim

Ph.D. Candidate

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Education

Korea University   *Mar. 2021 - PRESENT*

Ph.D. in Artificial Inteligence

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   *CVPR, 2025*

Ho-Joong Kim, Yearang Lee, Jung-Ho Hong, and Seong-Whan Lee

Comprehensive Information Bottleneck for Unveiling Universal Attribution to Interpret Vision Transformers   *CVPR, 2025*

Jung-Ho Hong, Ho-Joong Kim, Kyu-Sung Jeon, and Seong-Whan Lee   *Highlight*

TE-TAD: Towards Full End-to-End Temporal Action Detection via Time-Aligned Coordinate Expression   *CVPR, 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   *NeurIPS, 2024*

Yearang Lee, Ho-Joong Kim, and Seong-Whan Lee

Unknown-Aware Graph Regularization for Robust Semi-supervised Learning from Uncurated Data   *AAAI, 2024*

Heejo Kong, Suneung Kim, Ho-Joong Kim, and Seong-Whan Lee

MIRe: Enhancing Multimodal Queries Representation via Fusion-Free Modality Interaction for Multimodal Retrieval   *ACL Findings, 2025*

Yeong-Joon Ju, Ho-Joong Kim, and Seong-Whan Lee

Ensuring Spatial Scalability with Temporal-Wise Spatial Attentive Pooling for Temporal Action Detection   *Neural Networks, 2024*

Ho-Joong Kim, and Seong-Whan Lee

Description Attribute-Enhanced Spatio-Temporal Zero-shot Action Recognition   *ICPRAI, 2024*

Yehna Kim, Ho-Joong Kim, and Seong-Whan Lee

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 AI

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