

Ho-Joong Kim

PH.D. CANDIDATE

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Education

Korea University

PH.D. IN ARTIFICIAL INTELLIGENCE

Advisor: Prof. Seong-Whan Lee

Mar. 2021 - PRESENT

Hansung University

B.S. IN INDUSTRIAL MANAGEMENT ENGINEERING AND COMPUTER ENGINEERING

Mar. 2015 - Feb. 2021

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

FIQ: Fundamental Question Generation with the Integration of Question Embeddings for Video Question Answering

SMC, 2025

JUYOUNG OH, 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

Developing Document Understanding VLLM Agent

Aug. 2025 – Aug. 2026

KONAN TECHNOLOGY

Developing a **document layout analysis** model and **integrating VLLM** to understand analyzed document components. Designing a **lightweight neural network architecture** based on the developed model.

Developing 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

PRIZMABLE

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