Jeonghyeon Kim

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Research Interest

Out-of-Distribution Detection, Vision-Language Models, and Machine Unlearning

Professional Experience

DAINTLAB, SeoulTech

Seoul, South Korea

Research Assistant (Advisor: Prof. Sangheum Hwang)

Aug. 2022 - present

Research topic: Towards Safe and Reliable Artificial Intelligence

Machine Learning Data Research Group, KISTI

Daejeon, South Korea

Research intern (Advisor: Dr. Ryong Lee)

Jul 2021 - Aug 2021

Reserach topic: De-identification of Personal Information in Automotive Driving Images

EDUCATION

Seoul National University of Science and Technology (SeoulTech)

Seoul, South Korea

Ph.D. Candidate in Data Science (Advisor: Prof. Sangheum Hwang)

Mar. 2023 - present

GPA: 4.04/4.5

Seoul National University of Science and Technology (SeoulTech)

Seoul, South Korea

B.S. in Electrical and Information Engineering (double major)

Mar. 2018 - Feb. 2022

B.S. in Industrial Engineering

Mar. 2016 - Feb. 2022

GPA: 4.05/4.5

Publications

International Conference (IC)

[IC3] "Enhanced OoD Detection through Cross-Modal Alignment of Multi-Modal Representations" Jeonghyeon Kim and Sangheum Hwang

Conference on Computer Vision and Pattern Recognition (CVPR) 2025

[IC2] "Comparison of Out-of-Distribution detection Performance of CLIP-based Fine-Tuning Methods" Jeonghyeon Kim, Jihyo Kim, and Sangheum Hwang

International Conference on Electronics, Information, and Communication (ICEIC) 2024 (Oral, Best Paper Award)

[IC1] "Comparison of Out-of-Distribution detection Performance of CLIP-based Fine-Tuning Methods" Jihyo Kim, **Jeonghyeon Kim**, and Sangheum Hwang

Workshop on Practical Deep Learning in the Wild (AAAI) 2023

Domestic Conference (DC)

[DC3] "Uncovering Hidden Vulnerabilities in Machine Unlearning: Adversarial Attack as a Probe and Pruning as a Solution"

Hwiyeong Lee, **Jeonghyeon Kim**, and Sangheum Hwang

Korea Computer Congress (KCC) 2024

[DC2] "Uniformity Reduction Regularization: Multimodal Fine-tuning to Enhance Out-of-Distribution Detection Performance"

Jeonghyeon Kim and Sangheum Hwang

Korea Computer Congress (KCC) 2024 (Oral)

 \rightarrow Extended version published in CVPR 2025 [IC3]

[DC1] "Enhancing Out-of-Distribution Detection Performance of CLIP Based on Fine-tuning with Random Texts"

Jeonghyeon Kim, Jihyo Kim, and Sangheum Hwang

Korea Computer Congress (KCC) 2023 (Oral, Best Paper Award)

LICENSES AND CERTIFICATIONS

Engineer Quality Management Credential ID 20204010702Z Engineer Information Processing Credential ID 19201021536Y Human Resources Development Service of Korea (HRDK)

Dec, 2020

Human Resources Development Service of Korea (HRDK)

May, 2019

AWARDS AND ACHIEVEMENTS

Best Paper Award, ICEIC 2024, [IC2] Best Paper Award, KCC 2023, [DC1] Jan. 2024

Gold Prize, IISE BEAR Program Capstone Competition, IISE Department, SeoulTech

Jun. 2023 Dec. 2021

School Honor Scholarship, SeoulTech

Fall 2021

Departmental Achievement Scholarship, IISE Department, SeoulTech

Fall 2017

Eoeui Scholarship, SeoulTech

(Spring 2018, Fall 2018)

Academic Excellence Scholarship, SeoulTech

(Fall 2016, Spring 2017, Fall 2017, Spring 2021)

TEACHING EXPERIENCE

Deep Learning (113044-41001)

IISE department in SeoulTech, Seoul

Teaching Assistant (Advisor: Prof. Sangheum Hwang)

Spring Semester, 2024

Artificial Intelligence (146048-41001)

IISE department in SeoulTech, Seoul

Teaching Assistant (Advisor: Prof. Sangheum Hwang)

Fall Semester, 2023

OTHER EXPERIENCE

FC SeoulTech, FC Ctrl, FC Energizer, FC Maestro (Football Clubs) Republic of Korea Army

Mar. 2016 - present Sep. 2018 - Apr. 2020

Last updated: April 17, 2025