Jeonghyeon Kim

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RESEARCH INTEREST

Out-of-Distribution Detection, Machine Unlearning and Representation Learning

PROFESSIONAL EXPERIENCE

DAINTLAB, SeoulTech   Seoul, South Korea
Research Assistant (Advisor: Prof. Sangheum Hwang)   *Aug. 2022 - present*
Research topic: Out-of-Distribution Detection through Vision-Language Models

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*
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 and Information Systems Engineering   *Mar. 2016 - Feb. 2022*

PUBLICATIONS

International Conference

[C3] *"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

[C2] *"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)

[C1] *"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 at AAAI 2023

Domestic Conference

[C3] *"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

[C2] *"Uniformity Reduction Regularization: Multimodal Fine-tuning to Enhance Out-of-Distribution Detection Performance"*
Jeonghyeon Kim and Sangheum Hwang
Korea Computer Congress (**KCC**) 2024 (Oral)

[C1] *"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	Human Resources Development Service of Korea (HRDK)
Credential ID 20204010702Z	*Dec, 2020*
Engineer Information Processing	Human Resources Development Service of Korea (HRDK)
Credential ID 19201021536Y	*May, 2019*

Awards and Achievements

Best Paper Award, ICEIC 2024	*Jan. 2024*
Best Paper Award, KCC 2023	*Jun. 2023*
Gold Prize, IISE BEAR program Capstone Competition, SeoulTech	*2021*
Eui Scholarship (SeoulTech Special Scholarship)	
(Spring 2018, Fall 2018)	
Academic Excellence Scholarship, Seoul National University of Science and Technology	
(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)	*Fall Semester, 2023*
Artificial Intelligence (146048-41001)	IISE department in SeoulTech, Seoul
Teaching Assistant (Advisor: Prof. Sangheum Hwang)	*Spring Semester, 2023*

Other Experience

FC SeoulTech, Ctrl, Energizer, Maestro (Football Clubs)	*Mar. 2016 - present*
Republic of Korea Army	*Sep. 2018 - Apr. 2020*