Woo Jae Kim
Curriculum Vitae

School of Computing
Korea Advanced Institute of Science and Technology
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Education

2023–present: **Ph.D., School of Computing**, *Korea Advanced Institute of Science and Technology (KAIST)*, Daejeon, Korea.
Advisor: Sung-Eui Yoon
Research topics: Adversarial attack & defense, Computer vision, Machine learning, and Deep learning

2021–2023: **M.S., School of Computing**, *Korea Advanced Institute of Science and Technology (KAIST)*, Daejeon, Korea.
Advisor: Sung-Eui Yoon
Research topics: Adversarial attack & defense, Computer vision, Machine learning, and Deep learning
GPA: 4.24/4.30

2016–2021: **B.S., School of Computing**, *Korea Advanced Institute of Science and Technology (KAIST)*, Daejeon, Korea.
Minor in Electrical Engineering
GPA:3.67/4.30

2012–2016 : **High school**, *Northview High School*, Johns Creek, GA, USA.

Publications

International Conference

2023 **Woo Jae Kim**, Yoonki Cho, Junsik Jung, and Sung-Eui Yoon. Feature separation and recalibration for adversarial robustness. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023.

2023 Kyu-Beom Han, Olivia G. Odenthal, **Woo Jae Kim**, and Sung-Eui Yoon. Pixel-wise guidance for utilizing auxiliary features in monte carlo denoising. In *ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (I3D)*, 2023.

2022 **Woo Jae Kim**, Seunghoon Hong, and Sung-Eui Yoon. Diverse generative perturbations on attention space for transferable adversarial attacks. In *International Conference on Image Processing (ICIP) Oral paper ($\sim$ 10% acceptance rate)*, 2022.

2022 Kyuyeon Kim, Junsik Jung, **Woo Jae Kim**, and Sung-Eui Yoon. Deep video inpainting guided by audio-visual self-supervision. In *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2022.

2022 Yoonki Cho, **Woo Jae Kim**, Seunghoon Hong, and Sung-Eui Yoon. Part-based pseudo label refinement for unsupervised person re-identification. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2022.

Domestic Conference

2022 **Woo Jae Kim** and Sung-Eui Yoon. 적대적 공격에 강인한 피처 신뢰도 기반 다운샘플링. In 영상처리 및 이해에 관한 워크샵(IPIU), 2022.

2022 Woobin Im, **Woo Jae Kim**, and Sung-Eui Yoon. Scenario generation by action scene-graph prediction. In 한국소프트웨어종합학술대회 (KSC), 2022.

Research Experience

Korea Advanced Institute of Science and Technology (KAIST)

Sep. 2021 – present	***Learning robust feature representations via compression-decompression.*.** Learning robust representations against adversarial attacks by extracting reliable information through compression and expanding the extracted information through decompression.
Advisor :	**Prof. Sung-Eui Yoon**, *Professor, School of Computing*, KAIST (*Personal Web-page*)
Mar. 2020 – Feb. 2022	***Improving the transferability of adversarial examples*.** Generating highly diverse adversarial examples in the attention space to boost their transferability across different deep neural network-based models.
Advisor :	**Prof. Sung-Eui Yoon**, *Professor, School of Computing*, KAIST (*Personal Web-page*)

Fellowships & Awards

Feb. 2022	Recipient of **Paper Award (5th place)** in the 34th Workshop on Image Processing and Image Understanding (IPIU).
Fall 2021	Recipient of **Best TA Award** in School of Computing, KAIST.
Feb. 2021	Recipient of **Grand Prix (1st place)** in the Undergraduate Research Program (URP) held in KAIST.

Skills

Languages	Korean Native, English Native
Programming Languages	Python, PyTorch, Tensorflow, Keras, R, C, C++, JAVA, MATLAB
Web Technologies	HTML, CSS, Javascript

Teaching Experience

Spring 2023:	**CS101: Introduction to Programming**, KAIST.
Spring 2022:	**CS101: Introduction to Programming**, KAIST.
Fall 2021:	**CS206: Data Structure**, KAIST.
Spring 2021:	**CS101: Introduction to Programming**, KAIST.
Fall 2019:	**CS101: Introduction to Programming**, KAIST.
Fall 2018:	**CS101: Introduction to Programming**, KAIST.