
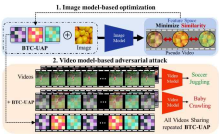
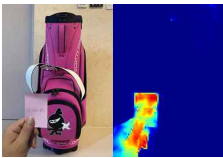

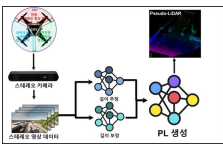
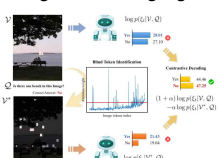


<div><div>Computational Intelligence Laboratory</div></div>	<div>Contact information</div> <div>Professor : changick@kaist.ac.kr TEL : 042-350-7421</div> <div>Lab. : kwon19@kaist.ac.kr</div> <div>Website : https://cilabs.kaist.ac.kr/</div>
<div>Current state of the Lab. (in 2025 Spring Semester)</div> <div>Postdoctoral Fellows: 0 PhD Students: 15 (full-time) / 9 (part-time) Master's Student: 7</div>	
<div>Research Areas</div>	
<div>Adversarial Attack</div> <div></div> <div><ul style="list-style-type: none">Imperceptibly perturb input data, with the intent of misleading ML models into generating erroneous predictions.It can be applied to image or video models, and large language models (LLMs), and can also be executed cross-modally.</div>	<div>Multimedia Forensics</div> <div></div> <div><ul style="list-style-type: none">Uncovering signs of tampering or manipulation in digital images and videos.Detecting deepfakes and generative AI-created content to preserve media authenticity.</div>
<div>Large Language Model (LLM) security</div> <div></div> <div><ul style="list-style-type: none">Jailbreak attacks make Large Language Models to generate harmful or toxic outputs.Defense mechanisms prevent jailbreak attacks.</div>	<div>Stereo Matching & 3D Object Detection</div> <div></div> <div><ul style="list-style-type: none">Predicting pseudo-lidar from stereo camera input.Detecting obstacle with 3D object detection to avoid collision.</div>
<div>Large Vision-Language Model (LVLM)</div> <div></div> <div><ul style="list-style-type: none">Integration of vision modality into Large Language Models.Hallucination mitigation for Large Vision-Language Models.</div>	<div>Long-Tail Recognition</div> <div><ul style="list-style-type: none">Resolving the data imbalance problem in real world applications such as wild animal classification.</div> <div>Image segmentation</div> <div><ul style="list-style-type: none">Human face parsing & body part segmentation.</div> <div>3D Object Synthesis</div> <div><ul style="list-style-type: none">Text to 3D object generation, novel view synthesis.</div> <div>Image Generation Model (Diffusion Model)</div> <div><ul style="list-style-type: none">Diffusion model architecture, text-to-image generation</div>
<div>Recommended courses & Career after graduation</div> <div>We recommend taking courses related to computer vision (CV) and deep learning. Depending on your area of interest, the courses of computer graphics and signal processing can be helpful. Those are not mandatory but it would be better to get used to computer vision and deep learning. About career, based on steady research and various industry-academic cooperation experiences, you can have great research capabilities and industrial adaptability.</div>	<div>Introduction to other activities besides research</div> <div>Smooth teamwork must precede innovative research. With this conviction, through outside activities, we build feelings of empathy and compassion for each other, and recharge our energy for research. We celebrate birthdays every month to make good memories of our lab life. Also, on fine days, we go on a picnic together. If you would like to see more pleasant memories of ours, please visit our homepage.</div>
<div>Introduction to the Lab.</div> <div>Professor Kim has advised his students at KAIST since 2005 and serves as the head of the Center for Security Technology Research. The mission of the CI Lab. is to analyze computer vision systems and develop the systems for various applications. Our lab collaborates with many industries and institutions to perform innovative research work and has published our research in top-tier conferences and journals.</div>	
<div>Recent research achievements ('21~'25)</div> <div><ul style="list-style-type: none">26 top-conference papers (CVPR, ECCV, ICCV, and etc.)19 international journals (TPAMI, IJCV, and etc.)</div>	