HyoJeong Lee

Seongnam-si, Gyeonggi-do, Republic of Korea
macarize@unist.ac.kr macarize.github.io github.com/macarize

Research Focus

My current researh is in the domain of computer vision, specifically in **attribute recognition** which is a sub-task of multi-label classification. My masters thesis is about constructing robust pedestrian attribute recognition model via **feature disentanglement** using class activation map. Also, I have expertise on **weakly supervised semantic segmentation(WSSS)** and **collaborative filtering.**

Education

Ulsan National Institute of Science and Technology **Aug 2021 – 2023**
Graduate School of Artificial Intelligence *Ulsan, Republic of Korea*
- Thesis - CAM-PAR: Class Activation Map Guided Feature Disentanglement for Pedestrian Attribute Recognition

Sahmyook University **Feb 2017 – 2021**
Bachelor of Software *Seoul, Republic of Korea*

Experience

Ulsan National Institute of Science and Technology **Jan – Jun 2023**
Teaching assistant for advanced machine learning topics *Ulsan, Republic of Korea*

Daegu Gyeongbuk Institute of Science and Technology **Jan – Feb 2021**
Research Intern *Daegu, Republic of Korea*
- Object localizing using hyper-dimensional computing.

Projects

Attribute estimation for building visual common sense system (UNIST, KETI)
WSSS, Multi-label classification, pedestrian attribute recognition **Aug 2021 – Aug 2023**
- Participated in a research project to build a system that generates occluded parts of an image using the notion of common sense.
- Developed robust attribute recognition model using class activation map(CAM) guided feature disentanglement.
- Contributed to build a new dataset for the project by analyzing it.

Object localization under hyper-dimensional computing framework (DGIST)
HD Computing, Adversarial erasing **Jan – Feb 2021**
- Suggested novel approach for object localization under hyper-dimensional computing framework based on adversarial erasing and conducted experiments on Multi-digit MNIST.

Home training application using pose estimation (Sahmyook University)
Openpose **May – Aug 2020**
- Developed algorithm that analyzes user's exercise posture through webcam and provides personalized online training advice and services like auto set counting.

Language Proficiencies

Korean: Native.
English: Advanced. (TOEIC 965)

Honors and Awards

Hanium Competition **2020**
The Federation of Korean Information Industries
- Honorable mention.
- Home training application using pose-estimation.

SU-Start Up **2020**
Sahmyook University
- Excellence Award.
- Home training application using pose-estimation with social network.

Outreach

SU-SW local winter education outreach **Jan 20 – 25, 2018**
Leader *Division of Computer·Mechatronics, Sahmyook University*
- Played a leading role as a team leader.
- Taught classes, Developed course materials and curriculum.