

Gwanghan Lee

✉ icanlgh0016@gmail.com | 🌐 lee-gwang

Interests

Model Compression, Computer Vision, Deep Learning, and Machine Learning

Education

Sungkyunkwan University

M.S./PHD IN DEPARTMENT OF ARTIFICIAL INTELLIGENCE

Suwon, S.Korea

2020.03 - 2023.8

Konkuk University

B.S./M.S. IN ORGANIC AND NANO SYSTEM ENGINEERING

Seoul, S.Korea

2011.03 - 2019.02

Publication

INTERNATIONAL

- [C4] "A-ColViT : Real-time Interactive Colorization by Adaptive Vision Transformer"
Gwanghan Lee*, Saebyeol Shin*, Donggeun Ko*, and Simon S. Woo.
International Workshop on Practical Deep Learning in the Wild at AAAI (AAAI), 2023.
- [C3] "Accelerating CNN via Dynamic Pattern-based Pruning Network"
Gwanghan Lee*, Saebyeol Shin, and Simon S. Woo.
International Conference on Information and Knowledge Management (CIKM) 2022.
(BK Computer Science IF=3)
- [C2] "EMGNet:Efficient Multi-Scale Feature Generation Adaptive Network"
Gwanghan Lee*, Minha Kim, Minha Kim, and Simon S. Woo.
International Conference on Information and Knowledge Management (CIKM) 2021.
(BK Computer Science IF=3, Acceptance Rate : 21.7%)
- [C1] "Exploring Group Sparsity using Dynamic Sparse Training"
Geunhye Jo, **Gwanghan Lee****, and Dongkun Shin.
IEEE International Conference on Consumer Electronics Asia (ICCE-Asia) 2020

DOMESTIC

- [C2] "Efficient Multi-Scale Feature Generation Network"
Gwanghan Lee*, Saebyeol Shin, and Simon S. Woo.
Korea Computer Congress (KCC), 2022
- [C1] "Gradual Group-level Pruning with Dynamic Sparse Training"
Gwanghan Lee*, and Dongkun Shin.
Korea Computer Congress (KCC), 2020

Journal

INTERNATIONAL

- [J1] "Development of fashion recommendation system using collaborative deep learning"
Gwanghan Lee*, Sungmin Kim, and Chang Kyu Park (**equally contribution**).
International Journal of Clothing Science and Technology (IF = 1.15), 2022.

project

Research on Object Detection in Aerial Images

MODELING

- Contributed to the development of rotated object detection network

HANHWA

2022.05 - Current

Research on solving mathematical problems using natural language processing technology

IITP

RESEARCH ON MODEL COMPRESSION

2021.07 - 2022.05

- Contributed to the development of efficient transformer network. (knowledge distillation)

Software Framework for Intelligent IoT Devices

IITP, SW starlab

RESEARCH ON MODEL COMPRESSION

2020.03 - 2021.01

- Contributed to the development of efficient network. (pruning, knowledge distillation, optimization)

Internship

SKT AI Fellowship

SKT

MODELING & APPLICATION

2022.06 - Current

- Research and develop deep learning model to colorize past historical images.

Honor & Awards

INTERNATIONAL

2022	Gold medal (9th/828), Sound Classification , BirdCLEF 2022	Kaggle
2022	Silver medal (21st/1565), Image Segmentation , UW-Madison GI Tract Image Segmentation	Kaggle
2021	Silver medal (41st/874), Image Captioning , Bristol-Myers Squibb – Molecular Translation	Kaggle
2020	Bronze medal (137th/1636), Regression , OpenVaccine: COVID-19 mRNA Vaccine Degradation Prediction	Kaggle
2020	Bronze medal (243th/2618), Classification , University of Liverpool - Ion Switching	Kaggle
2019	Bronze medal (113th/1538), Object Detection , Understanding Clouds from Satellite Images	Kaggle

DOMESTIC

2022	2nd Place, Image Colorization , SKT AI Fellowship	SKT
2021	1st Place, Super Resolution , Camera Image Quality Improvement AI Competition	LG AI Research
2021	1st Place, Object Detection , SKT CCTV Security Video Image Object Detection	SKT
2021	1st Place, Video Classification , 2021 Pangyo AI Challenge	AICONNECT
2021	1st Place, Topic Classification , News topic classification using KLUE data	DACON
2021	2nd Place, Anomaly Detection , Electrical energy quality classification AI Contest	NIPA
2021	2nd Place, Image Classification , Ego-Vision Hand Gesture Recognition AI Competition	NIA/DACON
2021	Awards (KRW 273M in support) , 2021 AI Grand Challenge 5th	IITP
2020	3rd Place, Regression , Collider detection AI contest using vibration data	KAERI/DACON
2020	2nd Place, Regression , Bio-Optical Data Analysis AI Contest	AI i-CON/DACON
2020	3rd Place, Regression , AI Challenge for temperature estimation using public data	KIMM/DACON
2019	2nd Place, Regression , Jeju BigData Competition	JTP/DACON
2019	3rd Place (leaderboard 5th), Recommender System , Kakao brunch article recommendation competition	KAKAO

SCHOLARSHIP

2021	Best Paper Scholarship , Sungkyunkwan University	SKKU
2021	Academic Excellence Scholarship , Sungkyunkwan University	SKKU

Teaching

Undergraduate Research Program

Suwon, S.Korea

DEEPLARNING PROJECT MENTOR

2021.03 - 2021.12

- Lecture on the entire pipeline from image pre-processing, modeling, and post-processing.
- A Guide to Deepfake Detection Research.
- A Guide to Efficient Deepfake Detection Research.

Skills

Programming

Python

Deeplearning Framework

Pytorch