Daeun Lee

goodgpt@korea.ac.kr linkedin.com/daeunlee00 daeunni.github.io

RESEARCH INTERESTS

- ***Multimodal***: Image+Language/ Video+Language
- ***Human-in-the-loop***: User-interactive AI
- ***Robustness***: Out-of-Distribution Generalization, Faithfulness, Debiasing
- ***Efficiency***: On-device learning

EDUCATION

The University of North Carolina at Chapel Hill NC, United States
Incoming PhD student. Computer Science (Advisor: Mohit Bansal) *Aug. 2024 —*
- Research Assistant Fellowship

Korea University Seoul, South Korea
B.E. Department of Statistics (GPA: 4.0/4.5, Major GPA: 4.0/4.5) *Mar. 2019 — Feb. 2024*
- Special Scholarship for Outstanding Students

PUBLICATIONS

[C4] BECoTTA: Input-dependent Online Blending of Experts for Continual Test-Time Adaptation
Daeun Lee, Jaehong Yoon*, Sung Ju Hwang.*
*International Conference on Machine Learning (**ICML, 2024**)*

[C3] Improving Lane Detection Generalization: A Novel Framework using HD Maps for Diversity
Daeun Lee, Minhyeok Heo, Jiwon Kim.
*CVPR Data-Driven Autonomous Driving Simulation Workshop (**CVPRW, 2024**)*

[C2] Resolving Class Imbalance for LiDAR-based Object Detector by Dynamic Weight Average and Contextual Ground Truth Sampling
Daeun Lee, Jinkyu Kim.
*IEEE/CVF Winter Conference on Applications of Computer Vision (**WACV, 2023**)*

[C1] Bridging the Domain Gap towards Generalization in Automatic Colorization
Hyejin Lee, Daehee Kim, Daeun Lee, Jinkyu Kim and Jaekoo Lee.
*European Conference on Computer Vision (**ECCV, 2022**)*

[P1] Trajectory Prediction by Clustering Human Interactions at Multiple Scales
Chiho Choi, Daeun Lee*, Srikanth Malla, Sangjae Bae, Jinkyu Kim.*
Preprint

ACADEMIC SERVICES

Reviewer

- *IEEE/CVF Conference on Computer Vision and Pattern Recognition(CVPR)*, 2022, 2024
- *European Conference on Computer Vision(ECCV)*, 2022, 2024

RESEARCH EXPERIENCES

UNC Chapel Hill NC, United States
Grduate Research Assistant (Supervisor: Mohit Bansal) *Aug.2024 — Current*

- Researched Video Generation with Faithfulness.

KAIST Seoul, South Korea
Research Intern / Contract Researcher (Supervisor: Sung Ju Hwang) *Mar.2023 — Current*

- Created a `Mixture-of-Domain-Adapter` architecture for the robust Continual Test-time Adaptation in the real-world driving scenarios. **[C4]**

NAVER LABS Jungja, South Korea
Research Intern (Mentor: Minheok Heo) *Jul.2022 — Dec.2022*

- Delved into domain shifts in lane detection and built a novel single-source domain generalization framework using in-house HD maps. **[C3]**

KOREA UNIVERSITY Seoul, South Korea
Research Intern (Supervisor: Jinkyu Kim) *Jul.2021 — Dec.2022*

- Developed perception models related to self-driving(e.g. Trajectory Prediction, LiDAR 3D Object Detection)
- Collaborated with Honda Research, NAVER Cloud and Hyundai Motors.**[C2, C1, P1]**

AWARDS & HONORS

Travel Grant from ICML2024 Area Chair *June.2024*

Digital Innovation Big Data Contest *May.2021*
2nd place *Korea Enterprise Data Corp.(KED)*

- Developed a multi-classification model designed to categorize the primary purpose of the business in response to a prompt aimed at establishing a company and presented in front of 50+ people about the business usage of these models.

ICT Autonomous Driving Project *Dec.2020*
5st place *The Federation of Korean Information Industries*

- Took a front-view video on a driving car, obtained 500+ images, annotated them, and trained a segmentation model.

Financial Big Data Festival *Dec.2020*
1st place *MiraeAsset.Corp*

- Built with `ExtraTree + KNN` a multi-classification model that classifies insurance claims purposes using in-house data from MiraeAsset and presented in front of 200+ people about the business usage of these models.

Kakao Arena Competition *May.2020*
Top 2% *Kakao.Corp*

- Developed a model using `Collaborative Filtering(CF) + KNN` to recommend appropriate songs and tags to be included in each playlist.

ADDITIONAL INFORMATION

Programming Ability: Python, C, Matlab, Git, PyTorch, Tensorflow, Linux, LaTeX, R, SAS
Language Ability: Fluent in both Korean and English, Beginner in Chinese