DAEUN LEE

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RESEARCH INTERESTS

- *Faithfulness*: OOD Generalization, Debiasing, Evaluation Metrics for Generation
- *Self-Evolving/Correcting Models*: Model-Guided Verification
- *Video Generation/Understanding*

EDUCATION

The University of North Carolina at Chapel Hill   NC, United States
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