

Inkyu Shin | Curriculum Vitae

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I am a second-year Ph.D. student at Korea Advanced Institute of Science and Technology (KAIST) under the co-supervision of Prof. Kuk-Jin Yoon and Prof. In So Kweon. I earned my B.S and M.S degrees in automotive engineering from Hanyang University(HYU) and KAIST in 2019 and 2021. I was a research intern at NEC Laboratories America, Inc, San Jose, CA (virtual).

Research Interests

My research interests currently lie in computer vision. Specifically, I pursue the goal of effectively processing data and building strong recognition model in computer vision. Followings are my main research topics.

- Semantic Segmentation
- Domain Adaptation and Generalization
- Simulated Learning
- Self-supervised Learning

Ultimately, the purpose of these researches is to apply to a variety of applications (e.g., Autonomous driving, Robot Navigation, AR/VR).

Research Experience

- **NEC Laboratories America, Inc** **San Jose, CA (virtual)**
Research Intern, Supervisor: Yi-Hsuan Tsai *May 2021 - Aug 2021*
- **Korea University** **Seoul, Korea**
Research Intern, Supervisor: Jaegul Choo. *Sep 2018 - Dec 2018*
- **Hanyang University** **Seoul, Korea**
Research Assistant, Supervisor: Myuon-Ho Sunwoo *Jul 2018 - Aug 2018*
- **Samsung Electronics** **Hwasung, Korea**
Intern, Semi-conductor Test Group. *Jan 2018 - Mar 2018*

Education

- **Korea Advanced Institute of Science and Technology (KAIST)** **Daejeon, Korea**
AUTOMOTIVE ENGINEERING Ph.D. degree, Advisor: In So Kweon *2021–*
- **Korea Advanced Institute of Science and Technology (KAIST)** **Daejeon, Korea**
AUTOMOTIVE ENGINEERING M.S degree, Advisor: In So Kweon *2019–2021*
Master's Thesis: Learning to Scale the Labels for Self-training based Domain Adaptation
- **Hanyang University (HYU)** **Seoul, Korea**
AUTOMOTIVE ENGINEERING B.S degree *2013–2019*

Publications

(C: conference / J: journal / P: preprint / * :equal contributions)

International Conference.....

- **[C7] MM-TTA: Multi-Modal Test-Time Adaptation for 3D Semantic Segmentation**
Inkyu Shin, Yi-Hsuan Tsai, Samuel Schulter, Bingbing Zhuang, Buyu Liu, Sparsh Garg, In So Kweon, Kuk-Jin Yoon
Computer Vision and Pattern Recognition (CVPR), 2022
- **[C6] UDA-COPE: Unsupervised Domain Adaptation for Category-level Object Pose Estimation**
Taeyeop Lee, Byeong-Uk Lee, Inkyu Shin, Jaesung Choe, Ukcheol Shin, In So Kweon, Kuk-Jin Yoon
Computer Vision and Pattern Recognition (CVPR), 2022
- **[P1] Unsupervised Domain Adaptation for Video Semantic Segmentation**
Kwanyong Park*, Inkyu Shin*, Sanghyun Woo, In So Kweon
arXiv, 2021
- **[C5] LabOR: Labeling Only if Required for Domain Adaptive Semantic Segmentation**
Inkyu Shin, Dong-Jin Kim, Jae Won Cho, Sanghyun Woo, Kwanyong Park, In So Kweon
International Conference on Computer Vision (ICCV), 2021 (Oral)
- Received *Qualcomm Innovation Award 2021*.
- **[C4] Discover, Hallucinate, and Adapt: Open Compound Domain Adaptation for Semantic Segmentation**
Kwanyong Park, Sanghyun Woo, Inkyu Shin, In So Kweon
Conference on Neural Information Processing Systems (NeurIPS), 2020
- Received *Qualcomm Innovation Award 2021*.
- **[C3] Two-phase Pseudo Label Densification for Self-training based Domain Adaptation**
Inkyu Shin, Sanghyun Woo, Fei pan, In So Kweon
European Conference on Computer Vision (ECCV), 2020
- Also presented at "Visual Learning with Limited Labels" Workshops in conjunction with (CVPR), 2020
- **[C2] Unsupervised Intra-domain Adaptation for Semantic Segmentation through Self-Supervision**
Fei pan, Inkyu Shin, Francois Rameau, Seokju Lee, In So Kweon
Computer Vision and Pattern Recognition (CVPR), 2020 (Oral)
- Received *Qualcomm Innovation Award 2020*.
- **[C1] Image-to-Image Translation via Group-wise Deep Whitening-and-Coloring Transformation**
Wonwoong Cho, Sungha Choi, David Keetae Park, Inkyu Shin, Jaegul Choo
Computer Vision and Pattern Recognition (CVPR), 2019 (Oral)

Awards

- 2021: Qualcomm Innovation Award.
- 2020: Qualcomm Innovation Award.

IT skills

- Languages: Python, MATLAB, C, LATEX
- Libraries: PyTorch

References

- **In So Kweon**, Professor, KAIST
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- **Kuk-Jin Yoon**, Professor, KAIST
kjyoon@kaist.ac.kr

Service

- Military Service: Graduated from US Army Sergeant school(WLC) as KATUSA.