

Curriculum Vitae

Hwan Heo

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RESEARCH INTEREST

Computer Vision
Neural Rendering and NeRF
Visual Scene Understanding

EDUCATION

Master's degree in Computer Science & Engineering Sep 2020 - Feb 2023
Korea University, Advisor: Prof. Hyunwoo J. Kim

Bachelor's degree in Computer Science & Engineering Mar 2015 - Aug 2020
Korea University, Advisor: Prof. HeuiSeok Lim

EXPERIENCE

Research Scientist Feb 2024 - present
NCSOFT Graphics AI Lab, 3D Generation Team

- Accelerated 3D Generation via Multi-view 2D Diffusion

Research Scientist Mar 2023 - Feb 2024
NCSOFT Vision AI Lab, Neural Rendering Team

- Accelerated NeRF Face Avatar w/ Multi-Camera
- Neural Rendering scene in Graphic Engine

Research Intern Jul 2022 - Dec 2022
NAVER AI Lab, Mentor: Ph.D. Jin-Hwa Kim


- NeRF Research Project: Robust Camera Pose Refinement for Multi-Resolution Hash Encoding [ICML '23]

PUBLICATION

[1] **Temporally Sparse Adversarial Perturbations on Videos**
H. Heo, D. Ko, J. Lee, Y. Hong, H. J. Kim** [IEEE Access 2021] 🔗

[2] **Consistency Learning via Decoding Path Augmentation for Transformers in Human Object Interaction Detection**
*J. Park, S. Lee, H. Heo, H. Choi, H. J. Kim** [CVPR 2022] 🔗


[3] **Domain Generalization Emerges from Dreaming**
*H. Heo, Y. Oh, J. Lee, H. J. Kim** [preprint] 🔗

[4] **Robust Camera Pose Refinement for Multi-Resolution Hash Encoding**
H. Heo, T. Kim, J. Lee, J. Lee, S. Kim, H. J. Kim*, JH. Kim* [ICML 2023]


[5] **Semantic-aware Occlusion Filtering Neural Radiance Fields in the Wild**
J. Lee, I. Kim, **H. Heo**, H. J. Kim* [preprint] 

[6] **Panoramic Image-to-Image Translation**
S. Kim, J. Kim, T. Kim, **H. Heo**, S. Kim*, J. Lee*, J.H. Kim* [preprint] 

PROJECT **Object Detection for Diagnosis of Infectious Diseases** Aug 2020 - Jul 2022
Korea University and Korea University Guro Hospital

AI-based 3D Rendering in Game & Graphic Engine  May 2023 -
Dec 2023
NCSoft Research

COMPUTER SKILLS *Languages & Software:* Python, PyTorch

PROFESSIONAL ACTIVITIES **Technical Assistant**

- Object Detection Tutorial in KCCV 2022
- Object Detection, Adversarial Attack and GAN Tutorial in Korea University-LG Electronics Winter AI Workshop 2022

Teaching Assistant

- Artificial Intelligence (COSE361) in 2021 spring and 2022 spring

Reviewers

- Computer Vision and Pattern Recognition (CVPR)
- European Conference on Computer Vision (ECCV)
- Neural Information Processing Systems (NeurIPS)