

Yuseung Lee

Daejeon, Republic of Korea | +82 10-9914-5842 | phillip0701@kaist.ac.kr

Homepage: phillipinseoul.github.io | Github:

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)	Daejeon, South Korea
Bachelor of Science in Computer Science	2017 - 2023
KAIST Graduate School of AI	Daejeon, South Korea
Master of Science in Artificial Intelligence (Advisor: Prof. Minhyuk Sung)	2023 - *Present

RESEARCH INTERESTS

3D Computer Vision, Generative Models, Geometric Modeling & Processing, Deep Learning

PUBLICATION

1. SyncDiffusion: Coherent Montage via Synchronized Joint Diffusions

Yuseung Lee, Kunho Kim, Hyunjin Kim, Minhyuk Sung
arXiv preprint [[Paper](#)] [[Project](#)]

2. FLUID-XP: Flexible User Interface Distribution for Cross-Platform Experience

Sunjae Lee, Hayeon Lee, Hoyoung Kim, Sangmin Lee, Jeong Woon Choi, Yuseung Lee, Seono Lee, Ahyeon Kim, Jean Young Song, Sangeun Oh, Steven Y. Ko, Insik Shin
Mobicom 2021

RESEARCH EXPERIENCE

Geometric AI Lab, KAIST	Daejeon, South Korea
<i>Student Researcher</i>	Jun 2022 - Jun 2023

- Worked on improving the generation capability of foundation diffusion models and developed *SyncDiffusion*, a novel synchronized joint diffusion method.
- Worked on 3D reconstruction from sparse image inputs by detecting planar regions and using them as geometric priors.

CPS Lab, KAIST	Daejeon, South Korea
<i>Student Researcher</i>	Jan 2021 - Aug 2021

- Conducted and analyzed user studies and implemented coverage tests for the evaluation of multi-device use cases of FLUID-XP.
- Developed a keyword extraction pipeline based on Korean NLP models and customized UI for online meetings with a real-time keyword extractor.

WORK EXPERIENCE

Omnious.AI	Seoul, South Korea
<i>Intern, ML Engineer</i>	Dec 2021 - Feb 2022

- Worked on developing a new near-duplicate image retrieval pipeline based on DenseNet and improved the accuracy by fusing global and local features and applying image random cropping.
- Used the new pipeline to detect and remove duplicate images from the internal clothing dataset.

PROJECTS

1. On Improving the Robustness of Image Classification Model Using Fuzzing-Based Data Augmentation [[Report](#)] [[Github](#)]

2. Replicating Unsup3D from Scratch [[Report](#)] [[Github](#)]

SKILLS

Programming Language: Python, Java, C

Programming Libraries: PyTorch, TensorFlow

English: Fluent