Seung Hyun Lee **Last update: Feb, 2023**

CONTACT INFORMATION

Seung Hyun Lee
Seoul, Korea

Github:https://github.com/lsh3163
Linkedin:linkedin.com/in/seunghyunlee-kuaicv
✉ E-mail:easter3163@korea.ac.kr

RESEARCH BACKGROUND

- **Multimodal Representation Learning**
- **Sound-Guided Visual Synthesis**

SELECTED PUBLICATIONS

1. **Seung hyun Lee**, Sieun Kim, Innfarn Yoo, Feng Yang, Donghyeon Cho, Youngseo Kim, Huiwen Chang, Jinkyu Kim*, Sangpil Kim*, "Soundini: Sound-Guided Diffusion for Natural Video Editing", (Under review).
2. **Seung hyun Lee**, Chanyoung Kim, Wonmin Byeon, SangHo Yoon, Jinkyu Kim*, Sangpil Kim*, "LISA: Localized Image Stylization with Audio via Implicit Neural Representation", (Under review).
3. **Seung hyun Lee**, Chanyoung Kim, Wonmin Byeon, Gyeongrok Oh, Jooyoung Lee, SangHo Yoon, Jinkyu Kim*, Sangpil Kim*, "Robust Sound-Guided Image Manipulation", (Under review, **TPAMI**).
4. **Seung hyun Lee**, Gyeongrok Oh, Wonmin Byeon, Chanyoung Kim, Won Jeong Ryoo, Sang Ho Yoon, Jihyun Bae, Jinkyu Kim*, Sangpil Kim*, "Sound-Guided Semantic Video Generation", European Conference on Computer Vision (**ECCV**), 2022.
5. **Seung hyun Lee**, Wonseok Roh, Wonmin Byeon, SangHo Yoon, Chanyoung Kim, Jinkyu Kim*, Sangpil Kim*, "Sound-Guided Semantic Image Manipulation", Computer Vision and Pattern Recognition (**CVPR**), 2022.
6. Jung, Minjoon, **Seunghyun Lee**, Eun Seon Sim, Min Ho Jo, Yu Jin Lee, Hye Bin Choi, and Junseok Kwon. "Stagemix video generation using face and body keypoints detection" Multimedia Tools and Applications (2022): 1-12.
7. **Seung hyun Lee** *et. al,*. "Sound-Guided Semantic Image Manipulation". *CtrlGen Workshop at NeurIPS*, 2021.
8. **Seung hyun Lee** *et. al,*. "Audio-Guided Image Manipulation for Artistic Paintings". *Machine Learning for Creativity and Design Workshop at NeurIPS*, 2021.

COLLABORATORS

- **Google Research**: Innfarn Yoo, Feng Yang, Huiwen Chang 2023.12–2024.2
- **Nvidia Research**: Wonmin Byeon 2022.9–2023.11

EDUCATION

- **Korea University**, Seoul, Korea 2022.3–2024.2 (expected)
  M.S in Department of Artificial Intelligence, GPA: **4.0/4.0**.
- **University of Seoul**, Seoul, Korea 2016–2022
  B.S in Department of Computer Science, GPA: **3.6/4.0**.

TECHNICAL SKILLS

- *Programming Languages*: Python, C/C++, Java.
- *Technical Softwares*: PyTorch, TensorFlow

RESEARCH EXPERIENCE

- **Korea University Computer Vision Lab** 2021.3–2024.2 (expected)
  Dept. of Artificial Intelligence, Korea University.
- **Teaching Assistant - Korea University** 2023.3–2023.6
  Coarse: Machine Learning.
- **Naver Papago Computer Vision Lab** 2020–2021
  Naver Papago Machine Learning Engineer (Computer Vision), Naver Corp.
- **Yonsei University Severance Hospital CCIDS** 2019–2020
  Medical AI researcher at Yonsei University Severance Hospital CCIDS.

PATENTS

- **Seunghyun Lee** *et. al,*. "Image Quality Improvement Appratus Using Artificial Neural Network". *Korea* 1020200021991, filled 20.02 issued 21.09.