Hyeongmin Lucas Lee

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🎓 https://scholar.google.co.kr/citations?user=eEB3K6gAAAAJ

▶ https://www.youtube.com/channel/UCz14hRj69FfGsl7ftF0D3ig

⬡ https://github.com/HyeongminLEE

🌐 https://hyeongminlee.github.io

Research Interest

- Computer Vision & Deep Learning
- Computational Photography
- Video Processing & Editing
- Video Frame Interpolation
- Video Stabilization
- Image & Video Super-Resolution
- Image & Video Compression

Education

Mar.2018 – Present	**INTEGRATED M.S./PH.D. Course in Electrical and Electronic Engineering**
	Yonsei University, Seoul, Korea
	- Image and Video Pattern Recognition LAB
	- Supervised by Prof. Sangyoun Lee
	- GPA: 4.24/4.3
Mar.2014 – Feb.2018	**B.S. in Electrical and Electronic Engineering**
	Yonsei University, Seoul, Korea
	- Graduated **Cum Laude**
	- GPA: 3.96/4.3

Work Experience

May.2021 - Present	**Adobe Research**
	Research Intern
	- Working with Dr. Simon Niklaus and Dr. Oliver Wang
	- Research on Video Stabilization

Publications

2021   [1]   Dogyoon Lee, Jaeha Lee, Junhyeop Lee, **Hyeongmin Lee**, Minhyeok Lee, Sungmin Woo, and Sangyoun Lee, "Regularization Strategy for Point Cloud via Rigidly Mixed Sample," *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021.

2020   [2]   Taeoh Kim*, **Hyeongmin Lee***, MyeongAh Cho*, Hoseong Lee, Dong heon Cho, and Sangyoun Lee (*Equal Contribution), "Learning Temporally Invariant and Localizable Features via Data Augmentation for Video Recognition," *European Conference on Computer Vision Workshops (ECCVW) (Oral)*, 2020.

       [3]   **Hyeongmin Lee**, Taeoh Kim, Tae-young Chung, Daehyun Pak, Yuseok Ban, and Sangyoun Lee, "AdaCof: Adaptive Collaboration of Flows for Video Frame Interpolation," *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020.

       [4]   Sangjin Lee, **Hyeongmin Lee**, Taeoh Kim, and Sangyoun Lee, "Extrapolative-Interpolative Cycle-Consistency Learning for Video Frame Extrapolation," *IEEE International Conference on Image Processing (ICIP)*, 2020.

2019   [5]   MyeongAh Cho, Tae-young Chung, **Hyeongmin Lee**, and Sangyoun Lee, "N-RPN : Hard Example Learning for Region Proposal Networks," *IEEE International Conference on Image Processing (ICIP)*, 2019.

       [6]   Taeoh Kim, **Hyeongmin Lee**, Hanbin Son, and Sangyoun Lee, "SF-CNN : A Fast Compression Artifacts Removal via Spatial-to-Frequency Convolutional Neural Networks," *IEEE International Conference on Image Processing (ICIP)*, 2019.

2018   [7]   **Hyeongmin Lee**, Taeoh Kim, Eungyeol Song, and Sangyoun Lee, "Collabonet: Collaboration of Generative Models by Unsupervised Classification," *IEEE International Conference on Image Processing (ICIP)*, 2018.

       [8]   Eungyeol Song, **Hyeongmin Lee**, Jaesung Choi, and Sangyoun Lee, "AHD: Thermal Image-based Adaptive Hand Detection for Enhanced Tracking System," *IEEE Access*, 2018.

Patents

2021   **Apparatus and method for interpolating frames based on multiple flows**
Korea Patent no.10-2201297, Jan. 2021

Projects

Jun.2021 – May.2022   **Development of Deep Learning-based Video Frame Interpolation Algorithm for Game and AR Videos**
Samsung Electronics Mobile Division

Jun.2021 – May.2022   **Deep Learning-based E2E Video Codec Research**
Samsung Research

Apr.2020 – Dec.2020   **Development of Data Augmentation-based AI Algorithm for Image Enhancement**
Samsung Research

May.2019 – Dec.2019   **Locally Controllable Deep Neural Network Algorithm Development**
Samsung Research

Apr.2018 – Dec.2018   **Development of Compact Deep Networks for Image Processing**
Samsung Research

Apr.2017 – Dec.2017	**Broadcasting Device Controlling & Editing Technology using Personal Voice/Gesture Recognition**
	Institute for Information & Communications Technology Promotion (IITP), Ministy of Science

Honors & Awards

2020   **Visual Inductive Priors for Data-Efficient Action Recognition Challenge**
- 1st Visual Inductive Priors for Data-Efficient Deep Learning Workshop
- European Conference on Computer Vision (ECCV) Workshop
- **4th Place**

2018   **Honor Graduation Award**

Peer Reviews

- IEEE Open Journal of Signal Processing

Activities

Oct.2019 - Present	**Member of PR12**
	Deep Learning paper reading group in <u>Tensorflow KR</u> (In Korean)
	- <u>Season 3</u> (Oct.2019-Jan.2021)
	- <u>Season 4</u> (Mar.2021-Present)
Mar.2019 - Present	**SNU AI Study**
	Offline AI Study Group at Seoul National University
	- Season 6 (Mar.2019-Jul.2019)
	- Season 7 (Feb.2020-May.2020)
	- Season 8 (Organizer) (Sep.2020-Dec.2020)
	- Season 9 (Organizer) (Jan.2021-Present)
Mar.2018 – Dec.2018	**Teaching Assistant**
	Electrical and Electronic Engineering, Yonsei University
	- (2018-1) Digital Signal Processing
	- (2018-2) Signal and System
Dec.2019 – Dec.2020	**Young Engineers' Honor Society (YEHS)**
	Organization under The National Academy of Engineering of Korea (NAEK)
	- Deputy Department Head of Academic Exchange Dpt. (Dec.2017 – Dec.2018)
	- Department Head of Academic Exchange Dpt. (Dec.2018 – Dec.2019)
	- President (Dec.2019 – Dec.2020)