## **Hyeongmin Lee**

Integrated M.S/Ph.D. Course, iMage and Video Pattern recognition lab (MVP)

Yonsei University, Seoul, Korea

#### CONTACT

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https://hyeongminlee.github.io

https://github.com/HyeongminLEE

https://www.youtube.com/channel/UCz14hRj69FfGsl7ftF0D3ig https://scholar.google.co.kr/citations?user=eEB3K6gAAAAJ

#### INTERESTS

Area

Computer Vision

Computational Photography Video Processing / Editing Motion Estimation

Motion Estimation

Task

Video Frame Interpolation

Video Stabilization Super-Resolution

#### EDUCATION

Mar.2018 – Present

INTEGRATED M.S./PH.D. Course in Electrical and Electronic Engineering

- YONSEI UNIVERSITY, Seoul, Korea
- 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

### International Journal

### AHD: Thermal-Image Based Adaptive Hand Detection for Enhanced Tracking System

Eungyeol Song, **Hyeongmin Lee**, Jaesung Choi, Sangyoun Lee *IEEE* Access, Mar. 2018

### International Conference

### Regularization Strategy for Point Cloud via Rigidly Mixed Sample

Dogyoon Lee, Jaeha Lee, Junhyeop Lee, **Hyeongmin Lee**, Minhyeok Lee, Sungmin Woo, Sangyoun Lee

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2021), Jun. 2021

### Learning Temporally Invariant and Localizable Features via Data Augmentation for Video Recognition

Taeoh Kim\*, **Hyeongmin Lee\***, MyeongAh Cho\*, Hoseong Lee, Dong heon Cho, Sangyoun Lee (\* Equal Contribution)

European Conference on Computer Vision Workshops (ECCVW 2020), Aug. 2020 (Oral)

### Extrapolative-Interpolative Cycle-Consistency Learning for Video Frame Extrapolation

Sangjin Lee, **Hyeongmin Lee**, Taeoh Kim, Sangyoun Lee *IEEE International Conference on Image Processing (ICIP 2020*), Oct. 2020

### AdaCoF: Adaptive Collaboration of Flows for Video Frame Interpolation

**Hyeongmin Lee**, Taeoh Kim, Tae-young Chung, Daehyun Pak, Yuseok Ban, Sangyoun Lee *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2020), Jun. 2020* 

### SF-CNN : A Fast Compression Artifacts Removal via Spatial-to-Frequency Convolutional Neural Networks

Taeoh Kim, **Hyeongmin Lee**, Hanbin Son, Sangyoun Lee *IEEE International Conference on Image Processing (ICIP 2019*), Sep. 2019

### N-RPN: Hard Example Learning for Region Proposal Networks

MyeongAh Cho, Tae-young Chung, **Hyeongmin Lee**, Sangyoun Lee *IEEE International Conference on Image Processing (ICIP 2019)*, Sep. 2019

### CollaboNet: Collaboration of Generative Models by Unsupervised Classification

**Hyeongmin Lee**, Taeoh Kim, Eungyeol Song, Sangyoun Lee *IEEE International Conference on Image Processing (ICIP 2018)*, Oct. 2018

#### Patent

### Apparatus and method for interpolating frames based on multiple flows

Korea Patent no.**10-2201297**, Jan. 2021

Domestic Publication

Journal: 1 paper, Conference: 4 papers (in Korean)

PROJECTS	
Apr.2020 – Dec.2020	Development of Data Augmentation-based Al 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
Jul.2016 – Jun.2017	Facial Expression Recognition Using Deep Neural Network  Graduation Research at Electrical and Electronic Engineering, Yonsei University
AWARDS	
Aug.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
Feb.2018	Honor Graduation Award - Yonsei University
MEMBERSHIP & SERVICES	

IEEE (Institute of Electrical and Electronics Engineers)

# - Student Member (2020) Services Reviewer - IEEE Open Journal of Signal Processing (2021)

### **ACTIVITIES**

Oct.2019 – Present	<ul> <li>Member of PR12</li> <li>Deep Learning paper reading group in Tensorflow KR</li> <li>Season 3 (Oct.2019-Jan.2021)</li> <li>Season 4 (Mar.2021-)</li> </ul>
Mar.2019-Present	SNU AI Study  - Offline AI Study 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-)
Mar.2018 – Present	Creator & Manager of MVP Website  - Official Website of MVP Lab
Mar.2018 – Dec.2018	<ul> <li>Teaching Assistant – Electrical and Electronic Engineering, Yonsei University</li> <li>[2018-1] Digital Signal Processing</li> <li>[2018-2] Signal and System</li> </ul>
Nov.2016 – Dec.2020	<ul> <li>Young Engineers' Honor Society (YEHS)</li> <li>Organization under The National Academy of Engineering of Korea (NAEK)</li> <li>Deputy Department Head of Academic Exchange Dpt. (Dec.2017 – Dec.2018)</li> <li>Department Head of Academic Exchange Dpt. (Dec.2018 – Dec.2019)</li> <li>President (Dec.2019 – Dec.2020)</li> </ul>
Sep.2015 – Feb.2018	<ul> <li>Electrical and Electronic Honor Society (EEHS)</li> <li>Organization under Yonsei University</li> <li>President (Jul.2016 – Jun.2017)</li> </ul>
SKILL	
Programming Languages Deep Learning Libraries Available Languages	Python, CUDA, Visual C/C++, Matlab Pytorch, Tensorflow Korean, English