# **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

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

### EXPERIENCE

May 2021 - Jul 2021

#### RESEARCH INTERN at Adobe Research

- Working with **Dr. Simon Niklaus** and **Dr. Oliver Wang** 

# 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

# 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 European Conference on Computer Vision Workshops (**ECCVW 2020**), Aug. 2020 (**Oral**) (\* Equal Contribution)

# 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 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
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  - 4 <sup>th</sup> Place
O T H E R E X P E R I E N C E	
Oct.2019 – Present	Member of PR12  - Deep Learning paper reading group in Tensorflow KR  - Season 3 (Oct.2019 - Jan.2021)  - Season 4 (TBD)
Mar.2019-Present	<ul><li>SNU AI Study</li><li>Offline AI Study at Seoul National University</li><li>Season 6 (Mar.2019-Jul.2019)</li></ul>

#### Mar.2018 – Present

# Creator & Manager of MVP Website

Season 9 (Jan.2021-)

Season 7 (Feb.2020-May.2020)Season 8 (Sep.2020-Dec.2020)

- Official Website of MVP Lab

Mar.2018 - Dec.2018

Teaching Assistant – Electrical and Electronic Engineering, Yonsei University

- [2018-1] Digital Signal Processing
- [2018-2] Signal and System

Nov.2016 - 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)

Sep.2015 - Feb.2018

### Electrical and Electronic Honor Society (EEHS)

- Organization under Yonsei University
- President (Jul.2016 Jun.2017)

### SKILL

Deep Learning Libraries

Available Languages

Python, CUDA, Visual C/C++, Matlab Pytorch, Tensorflow Korean, English

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