

# Hyeongmin Lee

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

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## CONTACT

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Google Scholar	<a href="https://scholar.google.co.kr/citations?user=eEB3K6gAAAAJ">https://scholar.google.co.kr/citations?user=eEB3K6gAAAAJ</a>

## INTERESTS

Area	Computer Vision Computational Photography Image & Video Processing / Editing Image & Video Restoration / Enhancement Motion Estimation
Task	Video Frame Interpolation Video Stabilization Super-Resolution

## EDUCATION

Mar.2018 – Present	<b>INTEGRATED M.S./PH.D.</b> Course in <b>Electrical and Electronic Engineering</b> <ul style="list-style-type: none"><li>- <b>YONSEI UNIVERSITY</b>, Seoul, Korea</li><li>- Supervised by <b>Prof. Sangyoun Lee</b></li><li>- GPA: 4.24/4.3</li></ul>
Mar.2014 – Feb.2018	<b>B.S.</b> in <b>Electrical and Electronic Engineering</b> <ul style="list-style-type: none"><li>- <b>YONSEI UNIVERSITY</b>, Seoul, Korea</li><li>- Graduated <b>Cum Laude</b></li><li>- GPA: 3.96/4.3</li></ul>

## EXPERIENCE

May.2021 – Jul.2021	<b>RESEARCH INTERN</b> at <b>Adobe Research</b> <ul style="list-style-type: none"><li>- Working with <b>Dr. Simon Niklaus</b> and <b>Dr. Oliver Wang</b></li></ul>
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## PUBLICATION

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	<b>Development of Data Augmentation-based AI Algorithm for Image Enhancement</b> SAMSUNG RESEARCH
May.2019 – Dec.2019	<b>Locally Controllable Deep Neural Network Algorithm Development</b> SAMSUNG RESEARCH
Apr.2018 – Dec.2018	<b>Development of Compact Deep Networks for Image Processing</b> SAMSUNG RESEARCH
Apr.2017 – Dec.2017	<b>Broadcasting Device Controlling &amp; Editing Technology using Personal Voice / Gesture Recognition</b> INSTITUTE FOR INFORMATION & COMMUNICATIONS TECHNOLOGY PROMOTION (IITP), MINISTRY OF SCIENCE
Jul.2016 – Jun.2017	<b>Facial Expression Recognition Using Deep Neural Network</b> Graduation Research at Electrical and Electronic Engineering, Yonsei University

## AWARDS

Aug.2020	<b>Visual Inductive Priors for Data-Efficient Action Recognition Challenge</b> <ul style="list-style-type: none"><li>- 1st Visual Inductive Priors for Data-Efficient Deep Learning Workshop</li><li>- European Conference on Computer Vision (ECCV) Workshop</li><li>- <b>4<sup>th</sup> Place</b></li></ul>
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## OTHER EXPERIENCE

Oct.2019 – Present	<b>Member of PR12</b> <ul style="list-style-type: none"><li>- Deep Learning paper reading group in <a href="#">Tensorflow KR</a></li><li>- <a href="#">Season 3</a> (Oct.2019 -Jan.2021)</li><li>- Season 4 (TBD)</li></ul>
Mar.2019-Present	<b>SNU AI Study</b> <ul style="list-style-type: none"><li>- Offline AI Study at Seoul National University</li><li>- Season 6 (Mar.2019-Jul.2019)</li><li>- Season 7 (Feb.2020-May.2020)</li><li>- Season 8 (Sep.2020-Dec.2020)</li><li>- Season 9 (Jan.2021-)</li></ul>
Mar.2018 – Present	<b>Creator &amp; Manager of MVP Website</b> <ul style="list-style-type: none"><li>- <a href="#">Official Website of MVP Lab</a></li></ul>

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

Programming Languages

Python, CUDA, Visual C/C++, Matlab

Deep Learning Libraries

Pytorch, Tensorflow

Available Languages

Korean, English

*Last Updated: January. 14, 2021*