

# Jungin Park

PH.D. CANDIDATE · YONSEI UNIVERSITY

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## Interests

- Main Topics** Video understanding, 2D/3D computer vision, unsupervised learning, meta-learning, machine learning.
- Current Focus** Video-language multi-modal learning, temporal causality reasoning, parameter-efficient tuning.

## Education

### Yonsei University

PH.D. CANDIDATE IN DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

- Advised by Prof. Kwanghoon Sohn

Seoul, S.Korea

Mar. 2018 - Present

### Yonsei University

B.E. IN DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

Seoul, S.Korea

Mar. 2012 - Feb. 2018

## Publication

### INTERNATIONAL JOURNAL

#### “Language-Guided Recursive Spatiotemporal Graph Modeling for Video Summarization”

JUNGIN PARK, JIYOUNG LEE, AND KWANGHOON SOHN

Dec. 2022 (Submitted)

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI). (Under Review)

### INTERNATIONAL CONFERENCE

#### “Dual-path Adaptation from Image to Video Transformers”

JUNGIN PARK\*, JIYOUNG LEE\*, AND KWANGHOON SOHN

Jun. 2023

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR).

#### “PartMix: Regularization Strategy to Learn Part Discovery for Visible-Infrared Person Re-identification”

MINSU KIM, SEUNGRYONG KIM, JUNGIN PARK, SEONGHEON PARK, AND KWANGHOON SOHN

Jun. 2023

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR).

#### “Language-free Training for Zero-shot Video Grounding”

DAHYE KIM, JUNGIN PARK, JIYOUNG LEE, SEONGHEON PARK, AND KWANGHOON SOHN

Jan. 2023

- IEEE/CVF Winter Conference on Applications of Computer Vision (WACV).

#### “PointFix: Learning to Fix Domian Bias for Robust Online Stereo Adaptation”

KWONYOUNG KIM, JUNGIN PARK, JIYOUNG LEE, DONGBO MIN, AND KWANGHOON SOHN

Oct. 2022

- European Conference on Computer Vision (ECCV).

#### “Probabilistic Representations for Video Contrastive Learning”

JUNGIN PARK, JIYOUNG LEE, IG-JAE KIM, AND KWANGHOON SOHN

Jun. 2022

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR).

#### “Pin the Memory: Learning to Generalize Semantic Segmentation”

JIN KIM, JIYOUNG LEE, JUNGIN PARK, DONGBO MIN, AND KWANGHOON SOHN

Jun. 2022

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR).

#### “Self-Balanced Learning for Domain Generalization”

JIN KIM, JIYOUNG LEE, JUNGIN PARK, DONGBO MIN, AND KWANGHOON SOHN

Sep. 2021

- IEEE International Conference on Image Processing (ICIP).

#### “Bridge to Answer: Structure-aware Graph Interaction Network for Video Question Answering”

JUNGIN PARK, JIYOUNG LEE, AND KWANGHOON SOHN

Jun. 2021

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR).

## “Cross-Domain Grouping and Alignment for Domain Adaptive Semantic Segmentation”

MINSU KIM, SUNGHUN JOUNG, SEUNGRYONG KIM, **JUNGIN PARK**, IG-JAE KIM, AND KWANGHOON SOHN

Dec. 2020

- Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI).

## “SumGraph: Video Summarization via Recursive Graph Modeling”

**JUNGIN PARK\***, JIYOUNG LEE\*, IG-JAE KIM, AND KWANGHOON SOHN (\* INDICATES EQUAL CONTRIBUTION.)

Aug. 2020

- European Conference on Computer Vision (ECCV).

## “Context-Aware Emotion Recognition Networks”

JIYOUNG LEE, SEUNGRYONG KIM, SUNOK KIM, **JUNGIN PARK**, AND KWANGHOON SOHN

Oct. 2019

- IEEE International Conference on Computer Vision (ICCV).

## “Video Summarization by Learning Relationships between Action and Scene”

**JUNGIN PARK**, JIYOUNG LEE, SANGRYUL JEON, SEUNGRYONG KIM, AND KWANGHOON SOHN

Oct. 2019

- IEEE International Conference on Computer Vision Workshop (ICCV Workshop-CoView).

## “Graph Regularization Network with Semantic Affinity for Weakly-supervised Temporal Action Localization”

**JUNGIN PARK**, JIYOUNG LEE, SANGRYUL JEON, SEUNGRYONG KIM, AND KWANGHOON SOHN

Sep. 2019

- IEEE International Conference on Image Processing (ICIP), Oral Presentation

## “Learning to Detect, Associate, and Recognize Human Actions and Surrounding Scenes in Untrimmed Videos”

**JUNGIN PARK**, SANGRYUL JEON, SEUNGRYONG KIM, JIYOUNG LEE, SUNOK KIM, AND KWANGHOON SOHN

Oct. 2018

- ACM Multimedia Workshop - The 1st Workshop and Challenge on Comprehensive Video Understanding in the Wild (ACMMM Workshop).

## Honors & Awards

|      |   |                                       |
|------|---|---------------------------------------|
| 2019 | <b>Outstanding 100 National Research Projects</b> , Research Assistant  | Ministry of Science and ICT, S. Korea |
| 2019 | <b>3rd Award</b> , The 2nd Workshop and Challenge on Comprehensive Video Understanding in the Wild (CoView 2019 ICCV Challenge) | ICCVW                                 |
| 2019 | <b>2nd Award</b> , Workshop on Frontiers of Electrical Engineering (FREE) 2019  | Yonsei University                     |

## Invited Talks

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|------|--|-------------------|
| 2022 | <b>Poster Presentation</b> , Korean Conference on Computer Vision (KCCV) | KCVS              |
| 2022 | <b>AI Tech Talk</b> , Naver CLOVA  | Naver Corporation |
| 2021 | <b>AI Author Meetup</b> , Naver AI LAB                                   | Naver Corporation |
| 2021 | <b>Online Presentation</b> , Korean Conference on Computer Vision (KCCV) | KCVS              |

## Research Projects

### Development of Multimodal-based General-purpose Social Artificial Intelligence Technology

Seoul, S.Korea

FUNDED BY YONSEI UNIVERSITY-YONSEI SIGNATURE RESEARCH CLUSTER.

Apr. 2022 - Present

- Developed an algorithm for computer vision with multi-modal data.

### Development of Complex Situational Awareness and Prediction Technology through Multi-modal Data Fusion and Social Artificial Intelligence

Seoul, S.Korea

FUNDED BY MINISTRY OF SCIENCE, MID-LEVEL RESEARCH.

Mar. 2021 - Present

- Developed an algorithm for computer vision with multi-modal data.

### Development of AI Technology for Continuously Improves according to the Changing Situation in the Real World

Seoul, S.Korea

FUNDED BY INSTITUTE OF INFORMATION & COMMUNICATION TECHNOLOGY.

Apr. 2020 - Mar. 2022

- Developed an algorithm for computer vision with meta-learning.

### Fundamental Research of Vision Algorithms for Comprehensive and Thorough Video Understanding

Seoul, S.Korea

FUNDED BY MINISTRY OF SCIENCE, ICT, AND FUTURE PLANNING.

May. 2018 - Dec. 2020

- Developed an algorithm for understanding untrimmed videos.

## Patent

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### “Video Question Answering Apparatus and Method based on Graph Interaction”

JUNGIN PARK AND KWANGHOON SOHN

Jan. 2021

- Korea Patent, 10-2022-0011919

### “Video Summarization Apparatus and Method through Recursive Graph Modeling”

JUNGIN PARK AND KWANGHOON SOHN

Dec. 2020

- Korea Patent, 10-2198480. PCT/KR2020/010755

### “Video Action Recognition and Localization Apparatus and Method”

JUNGIN PARK AND KWANGHOON SOHN

Oct. 2020

- Korea Patent, 10-2174658, PCT/KR2019/004798

## Professional Activities

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### Reviewer

IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE (TPAMI)  
IEEE/CVF CONFERENCE ON COMPUTER VISION AND PATTERN RECOGNITION (CVPR)  
IEEE/CVF INTERNATIONAL CONFERENCE ON COMPUTER VISION (ICCV)  
EUROPEAN CONFERENCE ON COMPUTER VISION (ECCV)  
AAAI CONFERENCE ON ARTIFICIAL INTELLIGENCE (AAAI)  
IEEE/CVF WINTER CONFERENCE ON APPLICATIONS OF COMPUTER VISION (WACV)  
THE BRITISH MACHINE VISION CONFERENCE (BMVC)

## Teaching

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### Yonsei University, Dept. of Electrical and Electronic Engineering

Seoul, S.Korea

TEACHING ASSISTANT.

Sep. 2018 - Jun. 2019

- Electrical and electronic engineering experiments: fundamentals, Digital signal processing.

## Skills

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**Programming** Python, C/C++, Ruby, MATLAB, OpenCV, LaTeX, Linux  
**Deep learning** PyTorch, Tensorflow, Keras  
**Languages** Korean, English