Jungin Park

PH.D. CANDIDATE · YONSEI UNIVERSITY

Digital Image Media Lab., C129, The 3rd Engineering Building, Yonsei-ro 50, Seodaemun-gu, Seoul, Rep. of KOREA

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Interests

Main Topics	Computer vision, video understanding, multimodal learning.
Current Focus	Vision-language/video-language model, parameter-efficient transfer learning, large-scale foundation model.

Education

Yonsei University   *Seoul, S.Korea*
PH.D. CANDIDATE IN DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING   *Mar. 2018 - Present*
- Advised by Prof. **Kwanghoon Sohn**

Yonsei University   *Seoul, S.Korea*
B.E. IN DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING   *Mar. 2012 - Feb. 2018*

Publication

SELECTED PUBLICATIONS

"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**).

"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**).

"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**).

"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**).

INTERNATIONAL CONFERENCE

"Knowing Where to Focus: Event-aware Transformer for Video Grounding"
JINHYUN JANG, JUNGIN PARK, JIN KIM, HYEONGJUN KWON, AND KWANGHOON SOHN   *Oct. 2023*
- IEEE/CVF International Conference on Computer Vision (**ICCV**).

"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, Seugnryong 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, Seugnryong 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, Seugnryong 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, Seugnryong 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**).

Preprint

"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)

"SimOn: A Simple Framework for Online Temporal Action Localization"

Tuan N. Tang, **Jungin Park**, Kwonyoung Kim, and Kwanghoon Sohn *Nov. 2022*
- arXiv preprint arXiv:2211.04905

Honors & Awards

2023	**Academic Research Fellowship**,	*Yonsei University*
2019	**Outstanding 100 National Research Projects**, Research Assistant	*Ministry of Science and ICT, S. Korea*
2019	**3rd Award**, The 2nd Workshop and Challenge on Comprehensive Video Understanding in the Wild (CoVieW 2019 ICCV Challenge)	*ICCVW*
2019	**2nd Award**, Workshop on Frontiers of Electrical Engineering (FREE) 2019	*Yonsei University*

Talks

2023	**Poster Presentation**, Korean Conference on Computer Vision (KCCV)	*KCVS*
2023	**Doctoral Colloquium**, Korean Conference on Computer Vision (KCCV)	*KCVS*
2022	**Poster Presentation**, Korean Conference on Computer Vision (KCCV)	*KCVS*
2022	**AI Tech Talk**, Naver CLOVA	*Naver Corporation*
2021	**AI Author Meetup**, Naver AI LAB	*Naver Corporation*
2021	**Online Presentation**, 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

"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

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

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

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