

# SANGHO LEE

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## EDUCATION

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### **PRIOR @ Allen Institute for AI**

*Jan. 2023 - Present*

Postdoctoral Researcher (Young Investigator)

### **Seoul National University**

*Mar. 2017 - Feb. 2023*

Doctor of Philosophy (Ph.D)

Overall GPA: 4.27 / 4.3

Department of Computer Science and Engineering

Advisor: Prof. Gunhee Kim

Thesis: Improving Efficiency in Large-Scale Self-Supervised Video Representation Learning

### **Seoul National University**

*Mar. 2010 - Feb. 2017*

Bachelor of Science

Overall GPA: 4.04 / 4.3

Department of Computer Science and Engineering

Minor in Statistics

Graudated *summa cum laude*

## RESEARCH INTERESTS

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Computer Vision, Machine Learning

Multimodal representation learning, especially for high-level video understanding and reasoning

## PUBLICATIONS

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### **Unified-IO 2: Scaling Autoregressive Multimodal Models with Vision, Language, Audio, and Action**

Jiasen Lu\*, Christopher Clark\*, **Sangho Lee\***, Zichen Zhang\*, Savya Khosla, Ryan Marten, Derek Hoiem, and Aniruddha Kembhavi (\*: equal contribution)

Conference on Computer Vision and Pattern Recognition 2024 (CVPR 2024)

### **Can Language Models Laugh at YouTube Short-form Videos?**

Dayoon Ko, **Sangho Lee**, and Gunhee Kim

The 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP 2023)

### **ACAV100M: Automatic Curation of Large-Scale Datasets for Audio-Visual Video Representation Learning**

**Sangho Lee\***, Jiwan Chung\*, Youngjae Yu, Gunhee Kim, Thomas Breuel, Gal Chechik, and Yale Song (\*: equal contribution)

International Conference on Computer Vision 2021 (ICCV 2021)

CVPR 2021: The Third Workshop on Learning from Unlabeled Videos

### **Unsupervised Representation Learning via Neural Activation Coding**

Yookoon Park, **Sangho Lee**, Gunhee Kim, and David Blei

The Thirty-eighth International Conference on Machine Learning (ICML 2021)

### **Parameter Efficient Multimodal Transformers for Video Representation Learning**

**Sangho Lee**, Youngjae Yu, Gunhee Kim, Thomas Breuel, Jan Kautz, and Yale Song

The Ninth International Conference on Learning Representations (ICLR 2021)

CVPR 2021: The Second Intertional Workshop on Large Scale Holistic Video Understanding

### **Self-Supervised Learning of Compressed Video Representations**

Youngjae Yu\*, **Sangho Lee\***, Gunhee Kim, and Yale Song (\*: equal contribution)

The Ninth International Conference on Learning Representations (ICLR 2021)

## **A Memory Network Approach for Story-based Temporal Summarization of 360° Videos**

Sangho Lee, Jinyoung Sung, Youngjae Yu, and Gunhee Kim

Conference on Computer Vision and Pattern Recognition 2018 (CVPR 2018)

ECCV 2018 Workshop on 360° Perception and Interaction

## **A Deep Ranking Model for Spatio-temporal Highlight Detection from a 360° Video**

Youngjae Yu, Sangho Lee, Joonil Na, Jaeyoun Kang, and Gunhee Kim

The Thirty-Second AAAI Conference on Artificial Intelligence (AAAI-18)

## **A Read-Write Memory Network for Movie Story Understanding**

Seil Na, Sangho Lee, Jisung Kim, and Gunhee Kim

International Conference on Computer Vision 2017 (ICCV 2017)

ICCV 2017: The Joint Video and Language Understanding Workshop

## **Encoding Video and Label Priors for Multi-label Video Classification on YouTube-8M dataset**

Seil Na, Youngjae Yu, Sangho Lee, Jisung Kim, and Gunhee Kim

CVPR 2017 Workshop on YouTube-8M Large-Scale Video Understanding

## **WORK EXPERIENCE**

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### **PRIOR @ Allen Institue for AI**

Research Intern

March-June, August-December 2022

## **AWARDS**

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### **Excellent Ph.D. Thesis Award**

*Feb. 2023*

Selected as the best doctoral thesis by Department of Computer Science and Engineering, Seoul National University

### **Naver Ph.D. Fellowship**

*Dec. 2021*

Awarded to outstanding graduate students in the field of Computer Science for their exceptional academic research

### **Youlchon AI Star Fellowship**

*Sep. 2021*

An award for those who made distinguished research achievements in core AI fields

### **MovieQA Challenge @ ICCV 2017 Workshop**

*Oct. 2017*

ICCV 2017 Workshop on the Joint Video and Language Understanding Workshop

Ranked 2nd place

### **Google Cloud & YouTube-8M Video Understanding Challenge**

*Jul. 2017*

CVPR 2017 Workshop on YouTube-8M Large-Scale Video Understanding

Ranked 8th place out of 655 teams (Top 2%)

## **ACADEMIC EXPERIENCE**

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### **Graduate Teaching Assistant at SNU**

Knowledge Representation and Reasoning (M1522.001300)

Fall 2018

Probabilistic Graphical Models (M1522.001300)

Fall 2017

Discrete Mathematics (4190.101)

Spring 2017