Hyounghun Kim

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Professional Experience

UNIST AIGS

Ulsan, South Korea

Aug 2022 Present

Assistant Professor

Aug 2022 – Present

Alexa AI at Amazon

Sunnyvale, CA

Applied Scientist Intern

May 2021 – Dec 2021

Mentor: Aishwarya Padmakumar, Di Jin, Dilek Hakkani-Tur

Adobe Research San Jose, CA

Research Intern May 2020 – Nov 2020

Mentor: Doo Soon Kim, Trung Bui

Samsung Electronics

Mobile Communications Business

Suwon, South Korea

Feb 2009 – May 2015

Software Engineer

SK Telecom Seoul/Daejeon, South Korea

SK Group Internship Program

July 2008 – Aug 2008

Samsung Electronics Suwon, South Korea

Internship Jan 2008

EDUCATION

University of North Carolina at Chapel Hill

Chapel Hill, NC

Ph.D. in Computer Science, Advisor: Prof. Mohit Bansal Aug 2017 – May 2022

University of Southern California Los Angeles, CA

M.S. in Computer Science Aug 2015 – May 2017

Yonsei University Seoul, South Korea

B.S. in Electrical & Electronics Engineering

March 2002 – Feb 2009

RESEARCH INTERESTS

Natural Language Processing (NLP), Multimodal Learning (NLP + Computer Vision/Robotics/AR) Language Grounding, Dialogue, Multimodal Virtual AI Assistant, Machine Learning, Deep Learning

Publications

15. Conversation Chronicles: Towards Diverse Temporal and Relational Dynamics in Multi-Session Conversations

Jihyoung Jang, MinSeong Boo, and Hyounghun Kim. Proceedings of EMNLP 2023. [pdf]

14. Sound of Story: Multi-modal Storytelling with Audio

Jaeyeon Bae*, Seokhoon Jeong*, Seokun Kang, Namgi Han, Jae-Yon Lee, <u>Hyounghun Kim</u>, and Taehwan Kim. Findings of EMNLP 2023. [pdf]

- 13. CoSIM: Commonsense Reasoning for Counterfactual Scene Imagination Hyounghun Kim*, Abhay Zala*, and Mohit Bansal. Proceedings of NAACL 2022. [pdf]
- 12. **RESIN-11:** Schema-guided Event Prediction for 11 Newsworthy Scenarios Xinya Du, Zixuan Zhang, Sha Li, Pengfei Yu, Hongwei Wang, Tuan Lai, Xudong Lin, Ziqi Wang, Iris Liu, Ben Zhou, Haoyang Wen, Manling Li, Darryl Hannan, Jie Lei, Hyounghun Kim, Rotem Dror, Haoyu Wang, Michael Regan, Qi Zeng, Qing Lyu, Charles Yu, Carl Edwards, Xiaomeng Jin, Yizhu Jiao, Ghazaleh Kazeminejad, Zhenhailong Wang, Chris Callison-Burch, Mohit Bansal, Carl Vondrick, Jiawei Han, Dan Roth, Shih-Fu Chang, Martha Palmer, and Heng Ji. Proceedings of NAACL 2022 (demo). [pdf]
- 11. On the Limits of Evaluating Embodied Agent Model Generalization Using Validation Sets Hyounghun Kim, Aishwarya Padmakumar, Di Jin, Mohit Bansal, and Dilek Hakkani-Tur. Insights Workshop at ACL 2022. [pdf]
- 10. CAISE: Conversational Agent for Image Search and Editing

 Hyounghun Kim, Doo Soon Kim, Seunghyun Yoon, Franck Dernoncourt, Trung Bui, and Mohit Bansal.

 Proceedings of AAAI 2022. [pdf]
- 9. NDH-Full: Learning and Evaluating Navigational Agents on Full-Length Dialogue Hyounghun Kim, Jialu Li, and Mohit Bansal. Proceedings of EMNLP 2021. [pdf]
- 8. Continuous Language Generative Flow Zineng Tang, Shiyue Zhang, Hyounghun Kim, and Mohit Bansal. Proceedings of ACL 2021. [pdf]
- 7. FIXMYPOSE: Pose Correctional Captioning and Retrieval Hyounghun Kim*, Abhay Zala*, Graham Burri, and Mohit Bansal. Proceedings of AAAI 2021. [pdf]
- 6. ARRAMON: A Joint Navigation-Assembly Instruction Interpretation Task in Dynamic Environments

 Hyounghun Kim, Abhay Zala, Graham Burri, Hao Tan, and Mohit Bansal. Findings of EMNLP 2020. [pdf]
- Dense-Caption Matching and Frame-Selection Gating for Temporal Localization in VideoQA
 Hyounghun Kim, Zineng Tang, and Mohit Bansal. Proceedings of ACL 2020. [pdf]
- 4. Modality-Balanced Models for Visual Dialogue
 Hyounghun Kim, Hao Tan, and Mohit Bansal. Proceedings of AAAI 2020. [pdf]
- 3. Improving Visual Question Answering by Referring to Generated Paragraph Captions
 Hyounghun Kim, and Mohit Bansal. Proceedings of ACL 2019 (short paper). [pdf]
 *Best short paper nomination
- 2. Development of Augmented Reality Applications in Otolaryngology-Head and Neck Surgery
 Austin S. Rose, <u>Hyounghun Kim</u>, Henry Fuchs, and Jan-Michael Frahm. The Laryngoscope, Jul 2019. [pdf]
- 1. Towards Fully Mobile 3D Face, Body, and Environment Capture Using Only Head-worn Camera

Young-Woon Cha, True Price, Zhen Wei, Xinran Lu, Nicholas Rewkowski, Rohan Chabra, Zihe Qin, <u>Hyounghun Kim</u>, Zhaoqi Su, Yebin Liu, Adrian Ilie, Andrei State, Zhenlin Xu, Jan-Michael Frahm, and <u>Henry Fuchs</u>. IEEE TVCG Vol. 24, Nov. 2018. [pdf]

RESEARCH EXPERIENCE

MURGe-Lab (in UNC NLP Group)

Research Assistant, Advisor: Prof. Mohit Bansal

UNC at Chapel Hill Aug 2018 – May 2022

- NLP + {Computer Vision, Robotics, AR}

Telepresence Lab

Research Assistant, Advisor: Prof. Henry Fuchs

UNC at Chapel Hill

Aug 2017 - July 2018

 Augmented Reality in Otolaryngology-Head and Neck Surgery Collaborated with Dr. Austin Rose (UNC Otolaryngology)

- Ego-Centric Environment Reconstruction (3D Printing, LED Mounts)

Mentoring & Teaching

Instructor:

CSE403 Deep Learning, UNIST, Fall 2022

AI502 Principle of Deep Learning, UNIST, Spring 2023

CSE362 Artificial Intelligence, UNIST, Fall 2023

Guest Speaker: COMP 786 Natural Language Processing, UNC, Fall 2020 (VQA, VL Navigation)

Past Mentoring: Abhay Zala (UNC Undergraduate), Zineng Tang (UNC Undergraduate)

SERVICES

Action Editor: ACL Rolling Review (ARR)

Reviewer: ACL Rolling Review (ARR), ACL, EMNLP, EACL, AAAI, CVPR, TPAMI

Program Committee: SpLU-RoboNLP 2021