# Hyounghun Kim

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#### EDUCATION

University of North Carolina at Chapel Hill

Ph.D. in Computer Science, Advisor: Prof. Mohit Bansal

Aug 2017 - May 2022 (Expected)

University of Southern California

M.S. in Computer Science

Los Angeles, CA Aug 2015 – May 2017

Chapel Hill, NC

Yonsei University

B.S. in Electrical & Electronics Engineering

Seoul, South Korea 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**

- 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]
- 5. 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, Hyounghun Kim, Zhaoqi Su, Yebin Liu, Adrian Ilie, Andrei State, Zhenlin Xu, Jan-Michael Frahm, and Henry Fuchs. IEEE TVCG Vol. 24, Nov. 2018. [pdf]

#### Research Experience

#### MURGe-Lab (in UNC NLP Group)

UNC at Chapel Hill

Research Assistant, Advisor: Prof. Mohit Bansal

Aug 2018 – Present

- NLP + {Computer Vision, Robotics, AR}

#### Telepresence Lab

UNC at Chapel Hill

Research Assistant, Advisor: Prof. Henry Fuchs

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)

#### Professional Experience

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 Suwon, South Korea

Mobile Communications Business 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

### SCHOLARSHIPS AND AWARDS

Honors, Yonsei University

University Designated Scholarship (Truth), Yonsei University

Spring 2007

Spring 2008, Fall 2008

National Science and Technology Scholarship, Korea Student Aid Foundation

Fall 2007

University Designated Scholarship, Yonsei University

Fall 2002, Fall 2003

#### Mentoring & Teaching

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

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

## SERVICES

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

Program Committee: SpLU-RoboNLP 2021

## PROGRAMING SKILLS

Python, JAVA, C/C++, C#, Matlab