Hyounghun Kim

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EDUCATION

University of North Carolina at Chapel Hill — Chapel Hill, NC
Ph.D. in Computer Science, Advisor: Prof. Mohit Bansal — Aug 2017 – May 2022 (Expected)

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

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.

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, <u>Hyounghun Kim</u>, 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 Spring 2007
University Designated Scholarship (Truth), Yonsei University Spring 2008, Fall 2008
National Science and Technology Scholarship, Korea Student Aid Foundation Fall 2007
University Designated Scholarship, Yonsei University Fall 2002, Fall 2003

Services

Reviewer: ACL Rolling Review (ARR), ACL, EMNLP, EACL, AAAI, TPAMI
Program Committee: SpLU-RoboNLP 2021

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