Gi-Cheon Kang

CONTACT INFORMATION

205, Building 942

Seoul National University

1, Gwanak-ro, Gwanak-gu, Seoul 08826, Republic of Korea

EDUCATION

Seoul National University, Seoul, Korea

Ph.D. Student in Artificial Intelligence Advisor: Prof. Byoung-Tak Zhang

Seoul National University, Seoul, Korea

M.S. in Cognitive Science

Advisor: Prof. Byoung-Tak Zhang

Thesis: Deep Representation Learning for Visually-Grounded Dialogue

Ajou University, Suwon, Korea

B.S. in Software and Computer Engineering

INTERESTS

Machine Learning, Natural Language Processing, Computer Vision

SELECTED PUBLICATIONS

[6] C³: Contrastive Learning for Cross-domain Correspondence in Few-shot Image Generation Hyukgi Lee, Gi-Cheon Kang, Chang-Hoon Jeong, Hanwool Sul, Junseok Park, and Byoung-Tak Zhang NeurIPS Workshop on Controllable Generative Modeling in Language and Vision (NeurIPSW), 2021

email: chonkang@snu.ac.kr

website: gicheonkang.com

Sept. 2020 – Present

Mar. 2018 - Feb. 2020

Mar. 2011 - Feb. 2018

[5] Reasoning Visual Dialog with Sparse Graph Learning and Knowledge Transfer

Gi-Cheon Kang, Junseok Park, Hwaran Lee, Byoung-Tak Zhang*, and Jin-Hwa Kim* Findings of Empirical Methods in Natural Language Processing (Findings of EMNLP), 2021

[4] Attend What You Need: Motion-Appearance Synergistic Networks for Video Question Answering Ahjeong Seo, Gi-Cheon Kang, Joonhan Park, and Byoung-Tak Zhang

Annual Meeting of the Association for Computational Linguistics (ACL), 2021

[3] Label Propagation Adaptive Resonance Theory for Semi-Supervised Continuous Learning

Taehyeong Kim, Injune Hwang, Gi-Cheon Kang, Won-Seok Choi, Hyunseo Kim, Byoung-Tak Zhang *IEEE International Conference on Acoustics, Speech and Signal Processing* (ICASSP), 2020

[2] Dual Attention Networks for Visual Reference Resolution in Visual Dialog

Gi-Cheon Kang, Jaeseo Lim, and Byoung-Tak Zhang *Empirical Methods in Natural Language Processing* (EMNLP), 2019

[1] Contextualized Bilinear Attention Networks

Gi-Cheon Kang, Seonil Son, and Byoung-Tak Zhang ECCV Workshop on VizWiz Grand Challenge (ECCVW), 2018

HONORS	&
AWARDS	

Best Paper Award @ Korea Software Congress (KSC)	Dec. 2019
Ranked 3rd Place, Visual Dialog Challenge @ CVPR 2019	June 2019
Software-Centered University Hackathon, Prize from Microsoft Korea	Sept. 2017
Yeoju Honor Scholarship	May 2016

^{*:} equal contribution

RESEARCH EXPERIENCE

SNU-NAVER Hyperscale AI Center, Seoul, Korea

Sept. 2021 – May 2022

Student Researcher

With Jin-Hwa Kim, Sungdong Kim, and Donghyun Kwak

Worked on self-training algorithms for visual dialog. Our proposed framework generates visually-grounded dialogues for 1.2M unlabeled image datasets to conduct the self-training.

SK Telecom AI Center, Seoul, Korea

Jan. 2020 - March. 2020

Research Intern

With Jin-Hwa Kim and Hwaran Lee

Developed Sparse Graph Learning (SGL) algorithm that discovers inherently sparse semantic structures of the human conversation. Published at Findings of EMNLP 2021.

Seoul National University (SNU), Seoul, Korea

Mar. 2018 – Present

Research Assistant

Advisor: Prof. Byoung-Tak Zhang

I have studied "grounded language learning" which aims to connect language to non-linguistic experiences such as sensory perception and action. Developed the machine learning algorithms for the visually-grounded dialogue systems (EMNLP 2019).

RESEARCH PROJECTS

Video Turing Test (VTT): The Video Turing Test desires to test a machine's ability of intelligent behavior in regards to observing and understanding video input and thereby its video intelligence. A machine capable of this task would prove human-like video understanding capabilities that could open the world of AI to a whole new possibilities in human-like long-term adaptive learning.

Machine Learning for Home Appliances, LG Electronics: Industry-Academia Cooperative Research with LG Electronics. Optimizing a motor control of an electric washing machine using ML technique.

INVITED TALKS

Reasoning Visual Dialog with Sparse Graph Learning and Knowledge Transfer

KSC 2021 - Top-tier Conference Paper Presentation Session Dec. 2021
Annual Conference on Human and Cognitive Language Technology Oct. 2021

Dual Attention Networks for Visual Reference Resolution in Visual Dialog

ICCV 2019 - Video Turing Test Workshop (**Spotlight**)

SK Telecom AI Center

Sept. 2019

EXTRA
CURRICULAR
ACTIVITIES

BI Lab Conference Deadline Site Administrator Military Service in Republic of Korea Army

2018 – Present 2012 – 2014