

# SANG-WOO LEE

## PERSONAL INFORMATION

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- Technical Leader at Conversation Team, NAVER CLOVA
- Leader at Language Research Team, NAVER AI Lab
- Adjunct Professor, KAIST AI
- E-mail: [sang.woo.lee@navercorp.com](mailto:sang.woo.lee@navercorp.com)
- Webpage: <https://sang-woo-lee.com>
- Google Scholar: <https://scholar.google.co.kr/citations?user=TMTTMuQAAAAJ>

## RESEARCH INTERESTS

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Task-Oriented Dialog System, Language Model, Natural Language Processing

## EDUCATION

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| <b>Ph.D. in Computer Science and Engineering</b><br>Seoul National University, Seoul, Republic of Korea | Mar 2012 - Aug 2018 |
| <b>B.S. in Computer Science and Engineering</b><br>Seoul National University, Seoul, Republic of Korea  | Mar 2008 - Feb 2012 |

## CONFERENCE

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- [1] Boseop Kim\*, HyoungSeok Kim\*, **Sang-Woo Lee\***, Gichang Lee, Donghyun Kwak, Dong Hyeon Jeon, Sunghyun Park, Sungju Kim, Seonhoon Kim, Dongpil Seo, Heungsub Lee, Minyoung Jeong, Sungjae Lee, Minsub Kim, Suk Hyun Ko, Seokhun Kim, Taeyong Park, Jinuk Kim, Soyoung Kang, Na-Hyeon Ryu, Kang Min Yoo, Minsuk Chang, Soobin Suh, Sookyo In, Jinseong Park, Kyungduk Kim, Hiun Kim, Jisu Jeong, Yong Goo Yeo, Donghoon Ham, Dongju Park, Min Young Lee, Jaewook Kang, Inho Kang, Jung-Woo Ha, Woomyoung Park, Nako Sung. **What Changes Can Large-scale Language Models Bring? Intensive Study on HyperCLOVA: Billions-scale Korean Generative Pretrained Transformers**. In *EMNLP*. 2021.
- [2] Kang Min Yoo, Dongju Park, Jaewook Kang, **Sang-Woo Lee**, Woomyeong Park. **GPT3Mix: Leveraging Large-scale Language Models for Text Augmentation**. In *Findings of EMNLP*. 2021.
- [3] Sungdong Kim, Minsuk Chang, **Sang-Woo Lee**. **NeuralWOZ: Learning to Collect Task-Oriented Dialogue via Model-based Simulation**. In *ACL*. 2021.
- [4] Yeon Seonwoo, **Sang-Woo Lee**, Ji-Hoon Kim, Jung-Woo Ha, Alice Oh. **Weakly Supervised Pre-Training for Multi-hop Retriever**. In *Findings of ACL*. 2021.
- [5] Minjeong Kim, Gyuwan Kim, **Sang-Woo Lee**, Jung-Woo Ha. **ST-BERT: Cross-modal Language Model Pre-training For End-to-end Spoken Language Understanding**. In *ICASP*. 2021.
- [6] Jung-Woo Ha\*, Kihyun Nam\*, Jin Gu Kang, **Sang-Woo Lee**, Sohee Yang, Hyunhoon Jung, Eunmi Kim, Hyeji Kim, Soojin Kim, Hyun Ah Kim, Kyoungtae Doh, Chan Kyu Lee, Sunghun Kim. **ClovaCall: Korean Goal-oriented Dialog Speech Corpus for Automatic Speech Recognition of Contact Centers**. In *Interspeech*. 2020.

- [7] Sungdong Kim, Sohee Yang, Gyuwan Kim, **Sang-Woo Lee**. **Efficient Dialogue State Tracking by Selectively Overwriting Memory**. In *ACL*. 2020.
- [8] **Sang-Woo Lee**, Tong Gao, Sohee Yang, Jaeyun Yoo, Jung-Woo Ha. **Large-Scale Answerer in Questioner's Mind for Visual Dialog Question Generation**. In *ICLR*. 2019.
- [9] **Sang-Woo Lee**, Yujung Heo, Byoung-Tak Zhang. **Answerer in Questioner's Mind: Information Theoretic Approach to Goal-oriented Visual Dialog**. In *NeurIPS*. 2018. (Spotlight)
- [10] **Sang-Woo Lee**, Jin-Hwa Kim, Jaehyun Jun, Jung-Woo Ha, Byoung-Tak Zhang. **Overcoming Catastrophic Forgetting by Incremental Moment Matching**. In *NIPS*. 2017. (Spotlight)
- [11] Jin-Hwa Kim, **Sang-Woo Lee**, Dong-Hyun Kwak, Min-Oh Heo, Jeonghee Kim, Jung-Woo Ha, Byoung-Tak Zhang. **Multimodal Residual Learning for Visual QA**. In *NIPS*. 2016.
- [12] **Sang-Woo Lee**, Chung-Yeon Lee, Dong-Hyun Kwak, Jiwon Kim, Jeonghee Kim, and Byoung-Tak Zhang. **Dual Memory Architectures for Lifelong Learning of Everyday Human Behaviors**. In *IJCAI*. 2016.

## JOURNAL

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- [1] Christina Baek, **Sang-Woo Lee**, Beom-Jin Lee, Dong-Hyun Kwak, Byoung-Tak Zhang. **Enzymatic Weight Update Algorithm for DNA-based Molecular Learning**. *Molecules*, 24(7):1409. 2019.
- [2] **Sang-Woo Lee**, Chung-Yeon Lee, Dong-Hyun Kwak, Jung-Woo Ha, Jeonghee Kim, and Byoung-Tak Zhang. **Dual-memory Neural Networks for Modeling Cognitive Activities of Humans via Wearable Sensors**. *Neural Networks*, 92:17-28. 2017.

## WORK EXPERIENCE

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<b>NAVER Corp.</b>	July 2018 - Present
· Team Leader at Language Research Team, NAVER AI Lab	April 2021 - Present
· Research Scientist at NAVER AI Lab	July 2018 - March 2021
· Technical Leader at Conversation Team, NAVER CLOVA	May 2020 - Present
· Project Initiator at DUET Team, NAVER CLOVA	July 2018 - April 2020

## PROJECTS

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<b>HyperCLOVA</b>	Jan 2021 - Present
· NAVER AI NOW [ <a href="#">Videos</a> ]	
<b>CCAI</b>	July 2018 - April 2020
· AiCall (DUET) [ <a href="#">Demo</a> ] [ <a href="#">JP Video</a> ] [ <a href="#">KR Video</a> ]	

## SCHOLARSHIPS

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Presidential Science Scholarship, Korea Student Aid Foundation	2008 - 2012
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## TEACHING EXPERIENCE

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<b>Teaching Assistant</b> <i>Seoul National University</i>	
· Introduction to Deep Learning	Mar 2018 - June 2018
· Machine Learning	Sep 2016 - Dec 2016

- Machine Learning
- Artificial Intelligence

Sep 2013 - Dec 2013  
Mar 2013 - June 2013

**Teaching Assistant**

*Samsung Advanced Technology Training Institute*

- Machine Learning
- Machine Learning Practice

July 2014  
Mar 2014

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Last Updated on Nov 20, 2021