Seil **Na**

MS student, Seoul National University

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Research Interest

- Deep Learning, Natural Language Processing and Computer Vision.
- Interpretable AI system, Story Understanding and Graph Networks

Publication

Discovery of Natural Language Concepts in Individual Units *ICLR 2019*

Seil Na, Yo Joong Choe, Dong-Hyun Lee, Gunhee Kim.

Encoding Video and Label Priors for Multi-label Video Classification on YouTube-8M dataset *CVPR 2017 Workshop*

Seil Na, Youngjae Yu, Sangho Lee, Jisung Kim(SKT), Gunhee Kim.

A Read-Write Memory Network for Movie Story Understanding *ICCV 2017*

Seil Na, Sangho Lee, Jisung Kim(SKT), Gunhee Kim.

Work Experience

Kakaobrain *Seongnam, S.Korea*

Research Intern *Jan. 2018 - Feb. 2018*

- Advisor: Yo Joong Choe, Dong-Hyun Lee
- Conduct interpretable NLP research that explains what meaning intermediate representations have, how they are disentangled, how they vary with different layers, tasks, datasets, and training conditions.

SNU Vision and Learning Laboratory *Seoul, S.Korea*

Graduate Research Assistant *Mar. 2017 - Present*

- Advisor: Prof. Gunhee Kim
- I studied the problem of Question Answering on Movie Story Contents. In MovieQA Public Dataset, we proposed Read-Write MemoryNet which improved the existing End-to-End MemoryNet and ranked 1st in 4 out of 6 tasks as of ICCV 2017 submission deadline. Our paper related with this work is accepted in ICCV 2017 as a Poster.
- I participated in Kaggle - Google Cloud & YouTube-8M Video Understanding Challenge, proposed new Video Classification models, and ranked the 8th(top1.2%) in the challenge. Our paper related to this is accepted as oral presentation in CVPR 2017 Workshop for YouTube-8M Large-Scale Video Understanding.

SNU Vision and Learning Laboratory *Seoul, S.Korea*

Undergraduate Research Assistant *Jan. 2016 - Feb. 2017*

- Advisor: Prof. Gunhee Kim
- In order to solve Text Question Answering, I implemented and experimented several models including End-to-End MemoryNet and its variants.
- Transfer learning Faster-RCNN model from VOC dataset to ImageNet Dataset.

Samsung Software Membership Program *Seoul, S.Korea*

Software Developer *Feb. 2015 - June. 2016*

- I participated in the development of SugarDream; NeuralNet-based sleeping solution application.
- I participated in the development of FootMap navigation application that guides road by vibrating the sensor on shoes, and awarded the Excellence Prize at the Science Makers Battle - Korea 2015.

Honors & Awards

International

2017 **Google Travel Grants,** for ICCV 2017 *Venice, Italy*

2017 **2nd Prize,** MovieQA Video-based Answering Challenge *Venice, Italy*

Domestic

2015 **20th Place**, ACM-ICPC Daejeon Regional *Daejeon, S.Korea*

2015 **Excellent Prize**, Science Makers Battle - Korea *Daejeon, S.Korea*

Education

Seoul National University *Seoul, S.Korea*

M.S. Candidate in Computer Science and Engineering *Mar. 2017 - Present*

- Advisor: Prof. Gunhee Kim (Vision and Learning Laboratory)

Hanyang University *Seoul, S.Korea*

Bachelor of Computer Science Engineering *Mar. 2013 - Feb. 2017*

Kyung-an High School *Kyung-gi, S.Korea*

Mar. 2011 - Feb. 2013