

# SEYEON (JULIA) LEE

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## RESEARCH INTERESTS

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Analysis on Pre-trained Language Model, Pre-trained Language Modeling, Commonsense Reasoning, Natural Language Processing, Machine Learning

## EDUCATION

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University of Southern California, Los Angeles, CA, U.S.A.

08/2019-present

Master of Science in Computer Science, Viterbi school of Engineering

Seoul Women's University, Seoul, Korea.

03/2014-08/2018

Bachelor of Engineering in Computer Science & Engineering

Illinois Institute of Technology, Chicago, IL, U.S.A

08/2016-05/2017

Exchange Student, Information Technology and Business, School of Applied Technology

## RESEARCH EXPERIENCE

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INK Lab, University of Southern California, Los Angeles, U.S.A.

12/2019-present

Research Student Worker, Advised by Professor Xiang Ren

- Working on constructing a challenging commonsense dataset that evaluates the capabilities of making commonsense inferences and the robustness of these inferences to language variations.
- Worked on constructing a novel numerical commonsense reasoning probing task with a diagnostic dataset consisting of 3K masked word prediction probes.
- Worked on expansive experiments to check whether our concept-aware language model can pack more commonsense knowledge into the parameters of a pre-trained text-to-text transformer without relying on any explicit resources.

## PUBLICATIONS

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**Birds have four legs?! NumerSense: Probing Numerical Commonsense Knowledge of Pre-trained Language Models**

in *Empirical Methods in Natural Language Processing(EMNLP) 2020*

Bill Yuchen Lin, Seyeon Lee, Rahul Khanna and Xiang Ren

**Pre-training Text-to-Text Transformers for Concept-centric CommonSense**

in *Self-Supervised Learning(SSL) workshop at NeurIPS 2020*

Wangchunshu Zhou\*, Dong-Ho Lee\*, Ravi Kiran Selvam, Seyeon Lee, Bill Yuchen Lin and Xiang Ren

**LEAN-LIFE: A Label-Efficient Annotation Framework Towards Learning from Explanation**

in *Annual Meeting of the Association for Computational Linguistics(ACL) 2020(system demo)*

Dong-Ho Lee\*, Rahul Khanna\*, Bill Yuchen Lin, Jamin Chen, Seyeon Lee, Qinyuan Ye, Elizabeth Boschee, Leonardo Neves and Xiang Ren

## UNDER REVIEW

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**Pre-Training Text-to-Text Transformers for Concept-Centric CommonSense**

Submitted to *International Conference on Learning Representations(ICLR) 2021*

Wangchunshu Zhou\*, Dong-Ho Lee\*, Ravi Kiran Selvam, Seyeon Lee, Bill Yuchen Lin and Xiang Ren

## WORK EXPERIENCE

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INNERGBUS, Chicago, IL, U.S.A

05/2017-06/2017

Intern, Software Development Division

- Worked with web development team
- Developed websites for a range of divisions across the company using PHP, Javascript, HTML, CSS, AWS
- Contributed to the development of networking software by providing technical support

## **COMPUTER SKILLS**

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Programming Languages : Python, Swift, Java, C++, HTML, CSS, JavaScript, React, Django

## **HONORS & AWARDS**

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Full Tuition (Academic) Scholarship, Seoul Women's University	02/2018
Internship Scholarship, Seoul Women's University	09/2017
Exchange Student Scholarship, Seoul Women's University	08/2016
SWELL (English Course) Scholarship, Seoul Women's University	02/2016

## **ACTIVITIES**

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<i>Volunteer</i> , teaching math in a national shelter, Seoul, Korea	03/2018-06/2018
<i>Member</i> , Programming Study Club, Seoul, Korea	03/2018-06/2018
<i>Member</i> , English Club HaengDang-GMP, Seoul, Korea	07/2015-12/2017
<i>Volunteer</i> , TED-X, assisting stage management, Chicago, IL, U.S.A.	04/2017
<i>Member</i> , Cheering Squad S.W.U.R.S, Seoul, Korea	03/2014-10/2014