Sewon Min

https://shmsw25.github.io

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Research Interest

- Area of interest: *Natural Language Processing* and *Machine Learning*.
- Question answering, Reasoning, Dialogue, Semantics, Tasks over knowledge base, Text generation, Interaction with visual data, and Learning algorithms for language.

Education

University of Washington, *Seattle, WA* — Sep 2018 (Expected) - Current
Ph.D. Student in Computer Science and Engineering

Seoul National University, *Seoul, Korea* — Mar 2014 - Aug 2018 (Expected)
B.S. in Computer Science and Engineering
Current GPA : 4.12/4.30(total), 4.19/4.30(major)

University of Washington, *Seattle, WA* — Sep - Dec 2016
Exchange Student

Gyeonggi Science High School, *Suwon, Korea* — Feb 2011 - Feb 2014
Specialized high school for students talented in math and science

Publication

[4] **Sewon Min**, Victor Zhong, Caiming Xiong, Richard Socher. "Efficient and Robust Question Answering from Minimal Context over Documents". In: *Proceedings of ACL (long)*. Melbourne, Australia. 2018.

[3] Minjoon Seo*, **Sewon Min***, Ali Farhadi, Hannaneh Hajishirzi. "Neural Speed Reading via Skim-RNN". In: *Proceedings of ICLR*. Vancouver, Canada. 2018.

[2] **Sewon Min**, Minjoon Seo, Hannaneh Hajishirzi. "Question Answering through Transfer Learning from Large Fine-grained Supervision Data". In: *Proceedings of ACL (short)*. Vancouver, Canada. 2017.

[1] Minjoon Seo, **Sewon Min**, Ali Farhadi, Hannaneh Hajishirzi. "Query-Reduction Networks". In: *Proceedings of ICLR*. Toulon, France. 2017.

Honorship

Doctoral Study Abroad Fellowship granted by Korea Foundation for Advanced Studies (KFAS)	2018 - 2023
ICLR Travel Award	2018
Google Travel Grants	2017, 2018
Internship Abroad Support Fund granted by Seoul National Univ.	2017
Samsung Convergence Software Course Mentor Scholarship	2017
Full Scholarship for all semesters attended at Seoul National Univ. (merit-based)	2014 - 2018

Research Experience

Salesforce Research, *Palo Alto, CA* — Nov 2017 - Feb 2018
Research Intern (Advisers: Caiming Xiong, Richard Socher)

- Worked on question answering with minimal context from given document to achieve efficiency and robustness. [4]

University of Washington, *Seattle, WA* — Oct 2016 - Feb 2017
Research Intern (Advisers: Hannaneh Hajishirzi, Ali Farhadi)

- Worked on Skim-RNN, which skims unimportant tokens and fully reads important tokens when reading text. [3]

- Worked on transfer learning in question answering. Showed benefit of transfer learning from model trained on different large fine-grained dataset by achieving SOTA on WikiQA, SemEval2016-task3 & SICK using pre-trained model on SQuAD. [2]
- Worked on QRN, which effectively handles questions requiring reasoning over multiple facts. Achieved SOTA on bAbI QA, bAbI dialog & DSTC2. [1]
- Developed interative demonstrations of context-aware & open-domain QA.

Seoul National University, *Seoul, Korea* Jul - Aug 2016
Intern at Vision and Learning Lab (Adviser: Gunhee Kim)

- Implemented & develop model for image caption generation using model from "Show, Attend and Tell".

Seoul National University, *Seoul, Korea* Feb - Jun 2016
Undergraduate Research Opportunity Program participant (Adviser: Sang-goo Lee)

- Implemented & developed model for entity linking from SNS (Twitter) to Knowledge Base (Wikipedia).

Skill

Programming Language - **Python**; Java; C; Javascript
Database Managament System - SQL(Mysql, Postgresql)
Machine Learning Framework - **Tensorflow**; **PyTorch**; Theano
Web Framework - Flask; Django

Talk & Presentation

SK AI Symposium, *Seoul, Korea* (Poster) Sep 2017
Naver corp., *Seongnam, Korea* (Invited talk) Aug 2017

Relevant Courses

Online Courses (Unofficial): Machine Learning (Stanford CS229, 2015); Convolutional Neural Networks for Visual Recognition (Stanford CS231n, 2016); Deep Learning for Natural Language Processing (Stanford CS224d, 2016)

Courses in Seoul National University (Selected): Intro. to Machine Learning (4190.428, 2015); Intro. to Data Mining (M1522.001400, 2016); Database (4190.301, 2016); Generic Algorithm (4190.681A, 2018, *Graduate level*)

Courses in University of Washington (Selected): Principle of DBMS (CSE544, *Graduate level*, 2016); Natural Language Processing (CSE517, *Graduate level*, 2017, auditing)

Teaching Experience

Mentor at Samsung Convergence Software Course Mar - Jun 2017
Help students with courses in computer science and engineering

Personal Tutor Dec 2013 - Oct 2017
Teach mathematics, physics, programming (Java; Python; Javascript) and computer science (Data Structure; Algorithm)