EDUCATION

Carnegie Mellon University

MASTER IN LANGUAGE TECHNOLOGIES — Advisor: Eduard Hovy

Pittsburgh, USA

Carnegie Mellon University

VISITING STUDENT — Funded by Korean Government

Sogang University

Mar. 2018 - Feb. 2021

M.S. IN COMPUTER SCIENCE AND ENGINEERING — CGPA: 4.38 / 4.5

Sogang University

Mar. 2011 - Feb. 2018

B.A. IN AMERICAN CULTURE, PSYCHOLOGY — Summa Cum Laude

Seoul, Korea

B.A. IN AMERICAN CULTURE, PSYCHOLOGY — Summa Cum Laude 2-year leave of absence as military interpreter

EXPERIENCE

NLP Research Engineer

NAVER, CLOVA

Jan. 2021 - May. 2022

Seongnam, Korea

- Implemented efficient transfer learning methods using model and data parallelism, enabling finetuning GPT3 to downstream tasks
- Researched effect of pretraining corpora on in-context learning of GPT-3 and coauthored NAACL 2021 paper
- Developed python library for pretraining and distributing language models which is used company-wise

Projects

Measuring the impact of AI on U.S economy

CARNEGIE MELLON UNIVERSITY, LANGUAGE TECHNOLOGIES INSTITUTE

Aug. 2022 - Current Pittsburgh, USA

- Developing BERT based classifier tailored for patent data classification, discovering AI related patents
- Extracting AI experts from publication dataset with LDA to track their trajectory

Grammar error correction

Jul. 2020 - Sep. 2020

Sogang University, Natural Language Processing Lab

Seoul, Korea

 Proposed method to generate diverse synthetic data using self training and back translation to increase BLEU score by 5.26

Quantifying cross-cultural similarity

CARNEGIE MELLON UNIVERSITY, LANGUAGE TECHNOLOGIES INSTITUTE

Dec. 2019 - Jul. 2020 Pittsburgh, USA

• Proposed cultural similarity features for cross-lingual transfer that can be used to rank transferable languages

Multilingual offensive language detection

CARNEGIE MELLON UNIVERSITY, LANGUAGE TECHNOLOGIES INSTITUTE

Dec. 2019 - Feb. 2020

Pittsburgh, USA

• Devised cross-lingual data selection method for offensive language detection and achieved competitive results in SemEval 2021 including 1st place in Arabic

Dependency Parsing

Jul. 2019 - Sep. 2019

Sogang University, Natural Language Processing Lab

Seoul, Korea

• Incorporated graph based and transition based parser and examined the role of morphemes, accomplishing SOTA in Korean dependency parsing and applied for patent

SKILLS

Programming Languages: Python, C

ML libraries: PyTorch, Transformers, Datasets, Pytorch Lightning, MegatronLM, Numpy, Pandas, Scikit-learn Dev environment: Git, Docker, Vim, Tmux, Shell, Linux

PUBLICATIONS

Seongjin Shin*, Sang-Woo Lee*, Hwijeen Ahn, Sungdong Kim, HyoungSeok Kim, Boseop Kim, Kyunghyun Cho, Gichang Lee, Woomyoung Park, Jung-Woo Ha, Nako Sung. On the Effect of Pretraining Corpora on In-context Few-shot Learning by a Large-scale Language Model. NAACL 2022. [pdf]

Hwijeen Ahn*, Jimin Sun*, Chan Young Park*, Yulia Tsvetkov, David R. Mortensen. Cross-Cultural Similarity Features for Cross-Lingual Transfer Learning of Pragmatically Motivated Tasks. *EACL 2021* [pdf]

Hwijeen Ahn*, Jimin Sun*, Chan Young Park*, Jungyun Seo. NLPDove at SemEval-2020 Task 12: Improving Offensive Language Detection with Cross-lingual Transfer. SemEval 2020. [pdf]

<u>Hwijeen Ahn</u>, Minyoung Seo, Chanmin Park, Juae Kim, Jungyun Seo. Extensive Use of Morpheme Features in Korean Dependency Parsing. In *IEEE BiqComp 2019*.