Seokchan Ahn

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EDUCATION University of California, Irvine

Dec 2022 Irvine, CA

M.S. in Computer Science

• GPA: 3.96/4.0

• Scholarship: Korean Government Study Abroad Scholarship, \$40k/year, 2021-2023

• Coursework: Courses in ML, NLP, CV, compiler, data structure, and distributed systems.

Seoul National University

Aug 2018

B.S. in Computer Science and Engineering, Bachelor in Business Administration

Seoul. Korea

Work Experiences Google

June 2022 - Sep 2022

Software Engineer Intern @ Advertiser Safety

Los Angeles, CA

- Designed and implemented a language interpretability tool (LIT) extension for DNN NLP models for classifying web pages into sensitive topic categories.
- Discovered mislabeled training examples using TracIn, a training data attribution method.
- Identified the cases of potential biases in model behavior using salience maps.

Samsung Research

Jul 2018 - Jul 2021

Research Engineer @ Neural Machine Translation, NLP Lab

Seoul, Korea

- Improved translation quality and latency of simultaneous translation models by introducing a method that paraphrases corpus monotonically.
- Established a strong baseline of Korean—English End-to-End Speech-to-Text translation comparable to cascaded versions by leveraging weakly-supervised data.
- Improved performance of Korean→English cascaded Speech-to-Text translator using domain adaptation techniques.
- Compressed text translation models for on-device translator app using mixed precision quantization.

Korean National Police Agency

Jan 2014 - Oct 2015

Software Developer (Alternative Military Service)

Seoul, Korea

- Led development and maintenance of ERP system for supplies, consumables, and budget management as web service that became a de facto standard in every police station in South Korea.
- Developed statute book Android application using government API.
- Skills: LAMP(Linux, Apache HTTP, MySQL, PHP), jQuery, Android

Publications

HyoJung Han*, Seokchan Ahn*, Yoonjung Choi, Insoo Chung, Sangha Kim, Kyunghyun Cho. "Monotonic Simultaneous Translation with Chunk-wise Reordering and Refinement." In Proceedings of the Sixth Conference on Machine Translation (WMT), 2021. [pdf]

Sathish Indurthi, Mohd Abbas Zaidi, Nikhil Kumar Lakumarapu, Beomseok Lee, Hyojung Han, Seokchan Ahn, Sangha Kim, Chanwoo Kim, Inchul Hwang. "Task Aware Multi-Task Learning for Speech to Text Tasks." In *IEEE ICASSP*, 2021. [pdf]

Seokchan Ahn, Kyungtae Kim, and Byoung-Tak Zhang. "Improving Natural Language Reading Performance with Extended Skim-RNNs." In Korea Computer Congress, 2018. [pdf]

Projects

Detecting Spurious Correlations in NLP via Post Hoc Model Explanations: Investigated whether post hoc model explanations effectively detect spurious correlations in the data. [Github]

SMPL Compiler: Constructed an optimizing compiler for the small and simple programming language smpl that generates IR in SSA and applies optimizations such as CSE and DCE. [Github]

Sokoban Solver using Q-learning: Built a Q-learning-based Sokoban game solver that efficiently learns without visiting all the possible states. [Github]

Node labeling API for Apache REEF: Designed and implemented node labeling API for Apache REEF that enables distributed resource managers to allocate jobs based on the node labels. [Github]

Technical Skills **Programming Language** Python (professional), C++, Java, Javascript (proficient), SQL

Deep Learning TensorFlow, PyTorch Other

Linux, Android / Git, Docker, Kubernetes, Spark, Hadoop