Philhoon Oh

✉ philhoonoh@kaist.ac.kr | ⌂ https://philhoonoh.github.io/ | ⌨ philhoonoh

Research Interest

My research interests primarily encompass Information Retrieval (IR) and Question Answering (QA). I aim to explore how language, whether in conversations, audio, or text, can be represented as question + external information = answer. My specific areas of focus include Open-Domain Question Answering, Fact Verification, and addressing the challenge of Hallucination or Confabulation in responses.

Education

Korea Advanced Institute of Science and Technology   *Seoul, S.Korea*

M.S. IN ARTIFICIAL INTELLIGENCE   *Mar. 2023 - Present*

Advisor: James Thorne, Co-Advisor: Jinwoo Shin

University of California, Berkeley   *Berkeley, CA USA*

B.A. IN STATISTICS   *Aug. 2012 - Aug. 2017*

Publications

CLIcK: A Benchmark Dataset of Cultural and Linguistic Intelligence in Korean   *LREC-COLING 2024*

EUNSU KIM, JUYOUNG SUK, **PHILHOON OH**, HANEUL YOO, JAMES THORNE AND ALICE OH   *Feb. 2024*

- In the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation, 2024

Detrimental Contexts in Open-Domain Question Answering   *EMNLP Findings*

PHILHOON OH, AND JAMES THORNE   *Sep. 2023*

- In The 2023 Conference on Empirical Methods in Natural Language Processing, 2023

Knowledge Corpus Error in Question Answering   *EMNLP Findings*

YEJOON LEE, **PHILHOON OH**, AND JAMES THORNE   *Sep. 2023*

- In The 2023 Conference on Empirical Methods in Natural Language Processing, 2023

Work Experience

NAVER Corp   *Gyeonggi-do, S.Korea*

RESEARCH INTERN   *Jan. 2024 - Feb. 2024*

- Designed a pipeline to generate datasets to train Korean evaluation models.
- Refined the evaluation model, achieving a Pearson Correlation of 0.846, compared to the baseline of 0.698

SK Inc. C&C   *Gyeonggi-do, S.Korea*

NLP ENGINEER & PL   *Jan. 2019 - Feb. 2022*

- Developed NLP framework based on Pytorch for various NLP models and subsequent tasks.
- Designed pipelines for NLP tasks including MRC, ODQA, Keyword Extraction.
- Implemented automated pipeline for Korean Text Crawling and Pre-processing.
- Led NLP Keyword Extraction project.

Anemone Boutique LLC   *Santa Monica, CA USA*

MARKETING ANALYST   *Oct. 2017 - Mar. 2018*

- Analyzed the impacts of different marketing strategies.
- Implemented time series analysis (SARIMA) on previous quarters data to predict future sales.

Projects

ChatGPT Project   *Seoul, S.Korea*

GRADUATE STUDENT ADVISOR   *Feb. 2023 - Dec. 2023*

- Conducted research on how ChatGPT works with non-English languages advised by *James Thorne* and *Alice Oh*.
- Mentored undergraduate students at KAIST on ChatGPT and fundamental NLP research topics.
- Led and guided undergraduate students in a research project; paper accepted at LREC-COLING 2024.

Korean ODQA Project

NLP Engineer

Gyeonggi-do, S.Korea

Jul. 2021 - Dec. 2021

- Developed a Korean ODQA (Open Domain Question Answering) feature.
- Achieved performance improvements on datasets, including Korquad v1, AI common sense, and the XX hospital dataset.

Chatbot PoC

NLP Engineer

Gyeonggi-do, S.Korea

Jul. 2021 - Sep. 2021

- Demonstrated the Open-Domain Question Answering (ODQA) feature to one of the largest hospitals in Korea, the client
- The ODQA feature was integrated as an NLP feature through a PoC.

Survey Project

NLP Engineer & PL

Gyeonggi-do, S.Korea

Jul. 2021 - Aug. 2021

- Developed a survey feedback tool for the SK SUPEX Council (Consultative Panel within SK Group).
- Implemented the Keyword Extractor module to collect feedback from anonymous ethical surveys.

NLP Framework

NLP Engineer

Gyeonggi-do, S.Korea

Jan. 2021 - Jun. 2021

- Participated in developing an integrated NLP framework based on PyTorch.
- Designed a new architecture to support various NLP models based on tasks and features.
- Developed unit tests for the framework using the pytest module.

Honors & Awards

| 2023 | **2nd Place**, 2023 AI Graduate School Challenge hosted by Korea Ministry of Science and ICT | *Seoul, S.Korea* |
| 2017 | **Manga Cum Laude**, High Distinction in General Scholarship at graduation | *Berkeley, CA USA* |