

Hanseok Oh

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Research Interests

My main research goal is to build efficient knowledge stores and access systems that can be applied to real-world scenarios. Specifically, I am interested in (1) Retrieval systems that can handle complex conditions and multimodal data (2) how to efficiently manipulate representation space (3) Retrieval augmented Language model.

Education

Korea Advanced Institute of Science and Technology (KAIST) @ Seoul Korea

Sep. 2021 - Feb. 2024

M.S. in Artificial Intelligence

Graduate School of AI | [Language & Knowledge Lab](#)

Advisor: [Minjoon Seo](#)

SungKyunKwan University (SKKU) @ Seoul Korea

Mar. 2014 - Aug. 2020

B.S. in Data Science & B.A. in Child and Adolescent Education

Cumulative GPA: 4.0 / 4.5

Selected Publication

INSTRUCTIR: A Benchmark for Instruction Following of Information Retrieval Models

Hanseok Oh, Hyunji Lee, Seonghyeon Ye, Haebin Shin, Hansol Jang, Changwook Jun, Minjoon Seo

Arxiv 2024 [[paper](#)]

Ktrl+F: Knowledge-Augmented In-Document Search

Hanseok Oh*, Haebin Shin*, Miyoung Ko, Hyunji Lee, Minjoon Seo

NAACL 2024 [[paper](#)]

Zero-Shot Dense Video Captioning by Jointly Optimizing Text and Moment

Yongrae Jo, Seongyun Lee, Aiden SJ Lee, Hyunji Lee, **Hanseok Oh**, Minjoon Seo

Arxiv 2023 [[paper](#)]

Nonparametric Decoding for Generative Retrieval

Hyunji Lee, Jaeyoung Kim, Hoyeon Chang, **Hanseok Oh**, Sohee Yang, Vlad Karpukhin, Yi Lu, Minjoon Seo"

ACL 2023 Findings [[paper](#)]

Structured Abstract Summarization of Scientific Articles: Summarization Using Full-text Section Information

Hanseok Oh, Seojin Nam, Yongjun Zhu

JASIST (2022) [[paper](#)]

Generative Multi-hop Retrieval

Hyunji Lee, Sohee Yang, **Hanseok Oh**, Minjoon Seo

EMNLP 2022 [[paper](#)]

ViSeRet: A simple yet effective approach to moment retrieval via fine-grained video segmentation

Aiden Seungjoon Lee, **Hanseok Oh**, Minjoon Seo

ICCV 2021 Workshop on Closing the Loop between Vision and Language (CLVL) [[paper](#)]

1st place at ICCV 2021 VALUE Challenge Retrieval Track [[link](#)]

Experience

LG AI

Sep.2023 - Feb. 2024

Research Intern

Working on a retrieval system which can have instruction following ability.

Kakao Enterprise

Jul. 2020 - Oct. 2020

Machine Learning Engineer Intern

Worked on large-scale knowledge graph representation learning. Derive insights from large-scale knowledge graphs using Spark.

NAVER, NLP Software Developer

Mar. 2020 - Jun.2020

Software Engineer Intern

Worked on an entity linking engine for the search system. I also extend the Bi-encoder-based entity linking model, BLINK, one of the state-of-the-art entity linking systems into the Korean version.

Undergraduate Research Program, KOFAC

Jan.2019 - Dec.2019

Worked on a fake news detection model based on various machine learning and a word representation method indicating authenticity.

Military Service

Served as a training assistant for the Republic of Korea Air Force Training Wing.

Sep. 2015 - Sep. 2017

Honors and Awards

- 1st Place, VALUE Challenge Retrieval Track, ICCV 2021
- Korean News Summarization, 3rd prize & Peer evaluation prize, Sungkyunkwan University, Korea (Dec. 2019)
 - Patent: Way to provide corporate news. Zhu, Oh, Park, Kim. Korean patent application 10-2020-0055691 (2020)
- Essay Generation using GPT-2, 3rd prize, Sungkyunkwan University, Korea (Nov.2019)
- Anomaly Detection using CCTV, 1st prize, Sungkyunkwan University, Korea (Jul.2019)
- KBO Baseball batting average prediction, 3rd prize, Dacon, Korea (Sep.2019)
- Academic Excellence Scholarship, Sungkyunkwan University, Korea (2019)