

# Hanseok Oh

[hanseokoh.github.io](https://hanseokoh.github.io) ✉ [hanseok@kaist.ac.kr](mailto:hanseok@kaist.ac.kr)

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## Research Interests

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My main research goal is to build efficient knowledge stores and access systems that can be applied to real-world scenarios by solving the inherent limitations of current neural models. 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

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

*Sep. 2021 - Present*

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

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Ktrl+F: Knowledge-Augmented In-Document Search

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

Arxiv 2023 [[paper](#)]

Nonparametric Decoding for Generative Retrieval

Hyunji Lee, Jaeyoung Kim, Hyeon 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**, Sejin 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](#)]

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## Experience

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### LG AI

*Sep.2023 - present*

Research Intern

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

### Kakao Enterprise

*Jul. 2021 - Oct. 2021*

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

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- 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)