

Dayoon Ko

 Seoul, Korea, Republic of
  dayoon.ko@vision.snu.ac.kr
 [dayoon-ko.github.io](https://github.com/dayoon-ko)
 [dayoon-ko](https://github.com/dayoon-ko)

 Google Scholar
  [dayoon-ko](https://www.linkedin.com/company/dayoon-ko)

Summary

PhD candidate in Computer Science and Engineering at Seoul National University, advised by Prof. Gunhee Kim.

Research interests: how language models use external knowledge, including search agents, scientific literature search, retrieval-augmented generation (RAG) for evolving knowledge, and multimodal understanding.

Education

- PhD** **Seoul National University**, Computer Science and Engineering
 M.S./Ph.D. integrated student at the Vision & Learning Lab. Seoul, Korea, Republic of
Sept 2022 – present
- Advised by Prof. Gunhee Kim.
 - Research on search agents, scientific literature search, and RAG for evolving knowledge.
- BS** **Yonsei University**, Computer Science and Engineering Seoul, Korea, Republic of
Mar 2018 – Aug 2022
 Bachelor of Science in Computer Science and Engineering.
- Graduated with top rank in the department.

Experience

- UC Berkeley**, Visiting Researcher Berkeley, CA, USA
Oct 2026 – present
 Hosted by Prof. Sewon Min.
- LG AI Research, Superintelligence Lab**, Research Intern Seoul, Korea, Republic of
Mar 2025 – Sept 2026
 Worked on agentic reasoning and retrieval systems for large language models.
- Developed Hybrid Deep Searcher, a search agent that integrates parallel and sequential search reasoning (ICLR 2026).
 - Analyzed how search agents conclude tasks with unverified constraints (COLM 2026 Workshop).
 - Built CompLit, a scientific literature search benchmark for implicit, cumulative, and unmet needs.

Publications

- CompLit: Scientific Literature Search Benchmarks Must Cover Implicit, Cumulative, and Unmet Needs** Oct 2026
 Dayoon Ko, Jihyuk Kim, Soyeong Jeong, Young-Jun Lee, Dahyun Lee, Juyeon Kim, Gunhee Kim, Moontae Lee, Kyungjae Lee
dayoon-ko.github.io/files/compllit.pdf (Preprint)
- ScholarCatalyst: A Benchmark for Retrieving Papers That Inspire New Research** Oct 2026
 Sohyeon Kim, Yoonho Lee, Bo Liu, Dayoon Ko, Rulin Shao, Seungone Kim, Graham Neubig, Pang Wei Koh, Aakanksha Chowdhery, Akari Asai, Omar Khattab, Yejin Choi, Gunhee Kim, Chelsea Finn
arxiv.org/abs/2610.02202 (arXiv 2026)
- K-BrowseComp: A Web Browsing Agent Benchmark Grounded in Korean Contexts** Sept 2026
 Nahyun Lee, Dongkeun Yoon, Guijin Son, Geewook Kim, Dayoon Ko, Jeonghun Park, Haneul Yoo, Jaewon Cho, Junghun Park, Changyoon Lee, Kyochul Jang, Jaeyeon Kim, Eunsu Kim, Woojin Cho, Seungone Kim
arxiv.org/abs/2606.02404 (EMNLP 2026 Findings)
- When Is Enough Not Enough? Illusory Completion in Search Agents** Aug 2026

Dayoon Ko, Jihyuk Kim, Sohyeon Kim, Haeju Park, Dahyun Lee, Gunhee Kim, Moontae Lee, Kyungjae Lee
arxiv.org/abs/2602.07549 (COLM 2026 Workshop)

Hybrid Deep Searcher: Scalable Parallel and Sequential Search Reasoning

Jan 2026

Dayoon Ko, Jihyuk Kim, Haeju Park, Sohyeon Kim, Dahyun Lee, Yongrae Jo, Gunhee Kim, Moontae Lee, Kyungjae Lee
openreview.net/forum?id=rXpTZyucal (ICLR 2026)

When Should Dense Retrievers Be Updated in Evolving Corpora? Detecting Out-of-Distribution Corpora Using GradNormIR

May 2025

Dayoon Ko, Jinyoung Kim, Sohyeon Kim, Jinhyuk Kim, Jaehoon Lee, Seonghak Song, Minyoung Lee, Gunhee Kim
aclanthology.org/2025.findings-acl.1334 (ACL 2025 Findings)

Can LLMs Deceive CLIP? Benchmarking Adversarial Compositionality of Pre-trained Multimodal Representation via Text Updates

May 2025

Jaewoo Ahn, Heeseung Yun, Dayoon Ko, Gunhee Kim
aclanthology.org/2025.acl-long.1280 (ACL 2025)

DynamicER: Resolving Emerging Mentions to Dynamic Entities for RAG

Oct 2024

Jinyoung Kim, Dayoon Ko, Gunhee Kim
aclanthology.org/2024.emnlp-main.762 (EMNLP 2024)

GrowOVER: How Can LLMs Adapt to Growing Real-World Knowledge?

July 2024

Dayoon Ko, Jinyoung Kim, Hahyeon Choi, Gunhee Kim
aclanthology.org/2024.acl-long.181 (ACL 2024)

Can Language Models Laugh at YouTube Short-form Videos?

Dec 2023

Dayoon Ko, Sangho Lee, Gunhee Kim
aclanthology.org/2023.emnlp-main.176 (EMNLP 2023)

Skills

Programming: Python, PyTorch, Java, C++; Git; large-scale experiment management

Languages: Korean (native), English (proficient)