

Yeongbin Seo

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Research Interest : NLP, ML, Multi-modal

Hierarchical Language Modeling: Humans can understand long sequences (e.g., language, episod) through a small number of higher-level concepts. Because of this, humans can learn efficiently even from very sparse reward signs, without suffering from long-horizon problems.

Multimodal Learning: Before learning language, humans understand the world through vision, sound, touch, and action. Children can develop a rich understanding of the world without reading a single document. This suggests an extremely resource-efficient form of learning grounded in multimodal experience.

I hope to realize these capabilities in AI.

Education

University of Toronto, Vector Institute

Ph.D in Computer Science

Toronto, Canada

Sep 2026 – Present

- **Advisor:** Prof. Rahul G. Krishnan

Yonsei University

M.S. in Artificial Intelligence

Seoul, South Korea

Mar 2024 – Aug 2026

- **Advisor:** Prof. Jinyoung Yeo, Prof. Jaehyung Kim

Yonsei University

B.S. in Educational Sciences

Seoul, South Korea

- **Coursework:** Educational Psychology, Neuro-cognitive Psychology

Publications

Prior-based Noisy Text Data Filtering: Fast and Strong Alternative For Perplexity

ICLR 2026

main

Yeongbin Seo, Gayoung Kim, Jaehyung Kim, Jinyoung Yeo

[Paper]  [Code] 

Fast and Fluent Diffusion Language Models via Convolutional Decoding and Rejective Fine-tuning

NeurIPS 2025
Spotlight (top 3.19%)

Yeongbin Seo, Dongha Lee, Jaehyung Kim, Jinyoung Yeo

[Paper]  [Code] 

Featured in media 

Train-Attention: Meta-Learning Where to Focus in Continual Knowledge Learning

NeurIPS 2024

main

Yeongbin Seo, Dongha Lee, Jinyoung Yeo

[Paper]  [Code] 

Quantifying Genuine Awareness in Hallucination Prediction: Disentangling Question-Side Shortcuts

ICLR Workshop 2026

Yeongbin Seo, Dongha Lee, Jinyoung Yeo

[Paper]  [Code] 

Renoise Consistency: Unlocking Efficient Self-Correction for Diffusion Large Language Models

NeurIPS 2026

Featured in media

- Research achievement on the diffusion language model ([2025, Total 9 media of South Korea](#)) [🔗](#)
- Leading the development of news recommendation system in Dong-A Ilbo ([2023, Journalists Association of Korea](#)) [🔗](#)

Industrial Project Experience

LLM-Powered Development-Assistant Tool with LG Electronics

2024 – 2025

- Developed a developer assistance tool commissioned by LG Electronics with the following features: (1) Automated assessment of SRS (Software Requirement Specification) documents (2) Conversion of SRS documents into Test Cases (TC) (3) Conversion of Test Cases (TC) into code scripts
- Tools Used: Python, Langchain, Pytorch

RAG based chatbot with Dong-A Ilbo (One of the legacy media)

2023

- Designed and developed “AskDonga”, a Retrieval-Augmented Generation (RAG)-based chatbot.
- Tools Used: Python, Langchain, Uvicorn, Faiss, Fastapi, AWS

AI News Recommendation System with Dong-A Ilbo

2022

- [Featured in media](#) [🔗](#)
- Designed and developed an AI-based news recommendation system for the Dong-A Ilbo website.
- Tools Used: Python, SQL, redis, Nginx, AWS

Skills

Languages: Python, Java, JavaScript, C/C++

Deep Learning Frameworks and Tools: PyTorch, Langchain, BitsAndBytes

Other Job Experience

Software Engineer

Seoul, South Korea

Dong-A Ilbo

Jan 2023 – Aug 2024

- Led the planning and development of AI services based on articles for Dong-A Ilbo, South Korea’s top newspaper.

News Journalist (Data Analysis Specialist)

Seoul, South Korea

News1 → Yonhap News → Dong-A Ilbo

Dec 2018 – Jan 2023

- Worked as a journalist for major South Korean media outlets, News1, Yonhap News and Dong-A Ilbo.
- Dong-A Ilbo is one of the most prestigious media organizations in Korea ([Wikipedia](#) [🔗](#)).
- Specialized in statistical analysis articles while covering mainly the Ministry of Economy and Finance, Statistics Korea, and the financial investment industry.

Rock Band Musician

Seoul, South Korea

Band Seoyeongbin

Jan 2015 – Dec 2017

- Leader, guitarist, and composer of the underground rock band “Band Seoyeongbin”, a three-member group active in underground clubs of Hongdae.