

Education

Stanford University

Palo Alto, USA

Masters, Artificial Intelligence, 4.2 GPA (major)

- **Research:** LLM post-training (RL), personalization, synthetic data & evals and representation learning.
- **Selected Coursework:** Independent Research (A+), NLP with Deep Learning (A+), Human-Centered LLMs (A+), Deep Reinforcement Learning (A), AI: Principles & Techniques (A+), Probability for Computer Scientists (A+)
- **Teaching:** Teaching Assistant for CS224N (NLP with Deep Learning), CS221 (AI: Principles & Techniques)

KTH (Royal Institute of Technology)

Stockholm, Sweden

Exchange Student, Computer Science

KAIST (Korea Advanced Institute of Science and Technology)

Daejeon, Korea

Bachelor of Science, Physics & Computer Science

Work Experience

NAVER LABS

Seoul, Korea

Research Intern

- A member of NAVER Clova team, working on **LLM post-training (RL)** research towards publication.

Monoclear.ai

Seattle, USA

Founder

- Launched the world's 1st "Korean LLM leaderboard" in collaboration with Eleuther AI, integrated 20K samples of 14 categorical LLM evaluation datasets. Evaluation consists of 3-shot and log-likelihood **evaluation pipelines**.
- Built "Monoclear.ai", an AI web platform for enhanced evaluation of **LLM performance and safety**. 300+ reactions across social media with visitors from 10 countries.

Amazon & AWS

Seattle, USA

Machine Learning Engineer II @ Alexa AI, AWS AI

- NLP research on contrastive learning of **text embeddings** for dialogue, resulting in 2 publications. Advised by Dr. Guoyin Wang. Improved classification accuracy metric by 32% on 834K synthetic dialogue sentences.
- Performed large-scale data augmentation and evaluation metric reporting with **PySpark**. Improved intent recall performance by 34% on 2M production voice assistant utterances.
- Maintained mission critical multi-tenant **Distributed Systems** of 4000 TPS.

Hyperconnect (acquired by Match Group - Los Angeles, USA)

Seoul, Korea

Technical Project Lead

- Built 2 AI mobile applications while **leading a team of 10**, with object detection and image segmentation features. Achieved 550K+ organic downloads. - Picai(Press), Aicut(Press)
- Handled 80 personnel for **data gathering / data augmentation** for image-based recommendation models.

Publications & Patents

- [1] Minsik Oh, Advit Deepak, Sophie Wu, Douwe Kiela and Ekaterina Shutova. Steerable Cultural Preference Optimization of Reward Models. *Pluralistic Alignment @ ICML*, 2026
- [2] Minsik Oh, Jiwei Li and Guoyin Wang. Template-assisted Contrastive Learning of Task-oriented Dialogue Sentence Embeddings. *ACL (Oral)*, 2026
- [3] Minsik Oh, Sungju Kim, Douwe Kiela, Guoyin Wang, Kang Min Yoo and Joosung Lee. Joint Continual Pre-Training and RL for Reading Comprehension. *Preprint*, 2025
- [4] Mehmet Hamza Erol*, Minsik Oh* and Douwe Kiela. Dynamic Summarization Length Control via Model Merging. *Preprint*, 2025
- [5] Minsik Oh, Joosung Lee, Jiwei Li and Guoyin Wang. PK-ICR: Persona-Knowledge Interactive Context Retrieval for Grounded Dialogue. *EMNLP (Oral)*, 2023.

- [6] Joosung Lee, Minsik Oh and Donghun Lee. P5: Plug-and-Play Persona Prompting for Personalized Response Selection. *EMNLP*, 2023.
- [7] Minsik Oh, Guoyin Wang, Taiwoo Park and Puyang Xu. Template-augmented Dialogue Representation Learning. *KnowledgeNLP-AAAI*, 2023.
- [8] Minsik Oh*, Minsang Kim*. Persona-Knowledge Dialogue Multi-Context Retrieval and Enhanced Decoding Methods. *Customized Chat Grounding Persona and Knowledge (CCGPK) @ COLING*, 2022.
- [9] Minsik Oh. NEAMER - Named Entity Augmented Multi-word Expression Recognizer. *SemEval @ NAACL*, 2022.
- [10] SERVER AND OPERATING METHOD THEREOF. *US 11080325*, Hyperconnect, INC.
- [11] TERMINAL AND IMAGE PROCESSING METHOD THEREOF. *US 10855933*, Hyperconnect, INC.

Personal Projects

Pluralistic Alignment via Self-Distillation from Synthetic User Feedback - report

- Developed **PAPO (Pluralistic Alignment Policy Optimization)**, an on-policy self-distillation RL algorithm for the non-verifiable domain of personalization. Up to 40% performance increase with training stability.

Korean LLM Leaderboard

- Integrated KLUE subset, KOBEST and HAE-RAE Bench few-shot on-demand evaluations using **LM evaluation harness**. 10K lines of heavily custom **Python** and **React** code. 300+ reactions from 10 countries.

Sentence Transformers (Distinction from HuggingFace) - repository

- Built 20 **text embedding** models with large-scale customized pre-training data mixtures, utilizable for search(retrieval) and Question Answering. Work with S-BERT author. 150K downloads of HuggingFace models.

KoCLIP - code

- Handled 10K indexes of 512 dimension **CLIP model** vectors while implementing image search using NMSLIB, in the intersection of NLP and CV. 140+ stars on GitHub.

Awards & Certificates

1st place in CCGPK Shared Task @ COLING

- 1st place in both tasks of **dialogue grounding retrieval** and **text generation**.
- Resulted in an EMNLP publication and a workshop publication.

2nd place in SemEval Shared Task @ NAACL

- Participated in Task 2: **Multilingual Idiomatcity Detection and Sentence Embedding**.
- Resulted in a workshop publication.

1st place in Analyticon Visualization Contest @ AWS

- Company-wide Python data visualization competition of over 100 submissions.
- Custom glass trophy awarded.

Special Nominees in HuggingFace Competition

- HuggingFace event comprising 100 projects & 800 participants, built SOTA Sentence Embeddings.
- Google Cloud Platform credits awarded.

Mensa Member

Sigma Xi, The Scientific Research Honor Society Full Member

Silver Medal, Special Award in KPhO

- National-level Physics Olympiad in Korea.

Academic Reviewer

- ACL, EMNLP, COLM, ARR (ACL Rolling Review), SemEval reviewer
- Pluralistic Alignment @ ICML, SPOT @ ICLR (Scaling Post-training for LLMs) reviewer

Technical Skills

Languages: Python, Java, Kotlin, Scala, Typescript, C/C++

AI Tools: VeRL, SGLang, TRL, Pytorch, HuggingFace, Pandas, Numpy, Tensorflow

Technologies/Frameworks: AWS, Spark, Flask, Django, FastAPI, React, Next.js, Gradio, Streamlit