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Professional Experience

WRTN Technologies / AI Research Engineer (NLP Specialist)

Seoul, S.Korea

Research on LLM agent evaluation

Mar, 2024 - Present

- Design and implement a benchmark system for in-the-wild human-assistant dialogues
- · Develop comprehensive evaluation framework for assessing the performance of human-assistant interactions in real-world scenarios

Riiid / Research Scientist (NLP)

Seoul, S.Korea

Research on Large Language Models for Education

Jul, 2023 - Feb, 2024

- Competed on the Huggingface Open LLM Leaderboard, achieving 1st place on Oct, 2023
- Explored the effects of instruction tuning from data (quantity, quality, diversity) and model (scale, efficiency, objective) perspectives
- · Implemented diverse optimization techniques (ZeRO, FSDP, and FlashAttention) for training/inference with single 8xA100 machine

Automated Essay Scoring

- · Achieved state-of-the-art on public essay scoring benchmarks which scored 0.53 to 0.75 on QWK
- Conducted "Bar exam" scoring which performs better than GPT-4

TUNIB / NLP Engineer Seoul, S.Korea

Korean Open-domain Chatbot Service

Dec, 2021 - Feb, 2023

- Directed dialogue data collection and quality filtering using advanced LLMs (HyperCLOVA and ChatGPT)
- Developed an in-house 1.3B Korean LM for multi-persona chatbot with self-collected datasets (20B/4B tokens for pre-training and fine-tuning)
- Operated a Kakaotalk-based chatbot service with DAU \sim 2,000
- Utilized Triton Inference Server and AWS ECS for efficient model serving
- · Enhanced model generation and API performance, increasing RPS from 4 to 13 and from 24 to 110, respectively

AI Grand Challenge: Policy Support AI

- · Awarded Ministry of Science and ICT Minister's Award
- Orchestrated TableQA data collection with policy domain experts
- Developed continual learning framework with OCR-based parsing and additional table data
- · Developed an integrated QA system for processing texts, tables, and charts (450M LM fine-tuning)

Research Projects

Story Completion Competition (2nd Place)

[Link]

• Instruction fine-tuned with diverse data augmentation, achieving 2nd place on public/private leaderboard in 3 days

Oct, 2023[*Github*]

Achieved SOTA in KLUE Benchmark

Dec, 2021

• Implemented R-BERT and Retrospective Reader models, and enhanced their structures and learning methods

[Github] [Blog]

- Open Domain Question Answering Competition (Gold Medal)
- Improved top-1 accuracy of document retrieval from 32% to 78% by hybrid retrieval techniques
- Improved EM score of question answering from 62.7 to 79.9 by effective methods

Nov, 2021

Relation Extraction Competition (Silver Medal)

[Github] [Blog]

· Trained custom embeddings, layers, and loss function with diverse augmented dataset

Oct, 2021

Image Classification Competition (Silver Medal)

[Github] [Blog]

• Utilized multi-task learning and test time augmentation techniques

Sep, 2021

Development Projects

Korean College Scholastic Ability Test

[Github]

Compared the performance of LLMs in solving the 2024 CSAT

Nov, 2023

Daily Papers

[Github]

Developed a tool for auto-translating and summarizing Huggingface's daily papers into Korean using ChatGPT

Nov, 2023

PFP Story Generation Completed story for 5,000 pfp characters using GPT-3

[Link] Sep, 2022

June 8, 2024 Yohan Lee · CV 1

"Look, Attend, and Generate Poem"

• Developed a web service for generating poetry from user-uploaded photos

Movie Review Rating Service

• Developed a web service for auto-rating and archiving key movie reviews

[Github]

Dec, 2021

Sep, 2020

[Github] [Report]

Education

Yonsei University Seoul, S.Korea

Bachelor of Arts

Mar. 2015 - Feb. 2022

- German Language and Literature
- Cognitive Science

Honors & Awards

Sep, 2023 2nd place, CJ Logistics CEO's Award, The 3rd Future Tech Challenge

Jan, 2023 3rd place, Ministry of Science and ICT Minister's Award, AI Grandchallenge: Policy Support AI

Nov, 2021 1st place, grand prize, The 3rd Annual University Student AI x Bookathon

SKKU, Seoul

Nov, 2021 3rd place / 19 teams, Open Domain Question Answering Competition

Naver Connect

Oct, 2021 5th place / 19 teams, Relation Extraction Competition

Naver Connect

Sep, 2021 13th place / 38 teams, Mask Image Classification Competition

Naver Connect

Aug, 2019 Scholarship, German Language and Literature Department

Yonsei University