SUNG JAE HYUK

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GitHub ⋄ Website 1 ⋄ Website 2

OBJECTIVE

My objective is to use the computer science knowledge (especially basic machine learning and deep learning) and mathematical knowledge (statistics, optimization theory, theoretical machine (deep) learning theory) that I have accumulated during my undergraduate studies to do the NLP research that I have always wanted to do. I am interested in researching mathematical problem-solving models and wish to passionately carry out my desired research based on the latest trends identified through my undergraduate studies and paper reviews.

EDUCATION

Korea University   2019 - Expected 2024, Spring

1st major: Computer Science
2nd major: Mathematics
Main course: Deep learning, Convex Optimization, Information theory and inference
GPA: 4.26/4.5

Busan Il Science High School   2016 - 2018

SKILLS

Programming Language
C/C++(Intermediate), Python(Intermediate), Javascript(Junior)

Libraries/Frameworks
Pandas, Numpy, Pytorch, Huggingface, algorithm(C/C++)

Other skills
Probability theory, Optimization theory, Mahcine/Deep Learning theory

INTERESTS

I am interested in tasks that use the following three areas to solve mathematical problems based on mathematical reasoning.
Question Answering
Open Document Question Answering, Multi-Hop Question Answering
Instruction tuning on LLM
Chain of Thoughts (CoT)
GNN with NLP
Graph Transformer with NLP, Recommendation system

RESEARCH EXPERIENCE

AI Grand Challenge   September 2022 - December 2022

· A project completed as an undergraduate researcher at the AIML-K.
· Dealing with question answering problem in document.
· To obatin a dataset for training, crawl the government document at PRISM using ajax
· For more scientific data, crawl not only the above documents, but also NKIS documents.
· Devise a method to automatically convert from Type 2(finding the answer in the document) to Type 1, where the relevant paragraph in the document is found.

AI Grand Challenge   July 2023 - August 2023
Intership Project
- A project done as an undergraduate researcher at the AIML-K
- Dealing with question generation problem in table.
- Since a lack of numerical tabue data, crawl the tabular data in KOSIS.
- Make sample problems (around 100 items) and fine-tune the LLM to generate the problem.

AWARDS

Korea Olympiad of Informatics   2017
Bronze Award
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Bronze Award
E-ICON World contest   2018
Best Creativity Award
Algorithm contest, Korea University   2019
3rd prize, Freshmen Department
AI Bookhaton, Sungkyunkwan University   2022
Participant Award
AI Grand Challenge   2022
7th prize
Participate as an undergraduate research student in AIML-K
AI Grand Challenge   2023
2nd prize
Participate as an undergraduate research student in AIML-K