YOONSANG LEE

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RESEARCH INTERESTS

My research interest lies in machine learning and natural language processing. Especially, I am interested in information retrieval and open-domain question answering.

EDUCATION

Seoul National University   Mar 2019 - Present
B.S. in Computer Science and Engineering   *Seoul, Korea*
B.S. in Statistics

Gyeonggi Science High School for the Gifted   Mar 2016 - Feb 2019
High school for gifted students in mathematics and science   *Suwon, Korea*

RESEARCH EXPERIENCE

Machine Intelligence Lab, Seoul National University   Jul 2022 - Present
Undergraduate Researcher (Supervisor: Prof. Kyomin Jung)

· Designed model for few-shot dense retrieval and enhanced performance on selected BEIR datasets

Naver AI Lab   Jan - Feb 2023

· Implemented causal deep learning model with Transformer

PROJECTS

Modality Translation through Conditional Encoder-Decoder   Apr - Jun 2023

· Proposed a general architecture that does not rely on a specific latent encoder-decoder architecture and provide more accurate latent space prediction across different modalities.

Private Chatbot Application   Mar - Jun 2023

· Developed an android chatbot application for automatic, anonymous customer complaints. Implemented using homomorphic encryption and ChatGPT.

NowSee   Sep - Dec 2022

· Web service for live weather feed and statistics [Link]

Haemong Dogam   Jul 2022

· Web service for interpreting and recording dreams [Link]

Hate Twits Classifier   Nov - Dec 2020

· Classified twits into 'hate', 'offensive', 'non-offensive' using characteristics as parameters of logistic regression

Finding Abandoned Animals with Keywords   Jul - Aug 2019

· Developed a program finding one's abandoned animal based on specified categories and similar keywords, resulting better search than official webpage Broadcasted on EBS

**Collaborative Filtering Recommendation System Correcting User Bias
Based on Comments-Rating Relationship**   Mar - Jun 2018

· Suggested enhanced recommendation system using CNN trained by movie comments to unbias user ratings

AWARDS AND SCHOLARSHIPS

Merit Based Scholarship	Every semester
Army Commendation Medal	2022
4th place, Selected Topics Seminar 2 Presentation	2019
Silver, Korea Olympiad in Informatics	2018

SKILLS

Programming Languages	C++, Java, Python, R, HTML/CSS, Javascript, Kotlin, SQL
Frameworks and Tools	PyTorch, ReactJS, Django, Git, Docker
Languages	Korean(native), English(TOEFL 100 TOEIC 980)

TEACHING EXPERIENCE

Computer Architecture, Undergraduate TA   Mar - Jun 2023

Electrical and Electronic Circuits, Undergraduate TA   Sep - Dec 2020

Invited talk at SNUE Gifted Science Education Center   Jun, Oct 2019

· Introduced recent trend of computer science to gifted students in informatics

EXTRACURRICULAR

LikeLion at SNU	Mar - Nov 2022
- Studied HTML/CSS, ReactJS, Django for web development	
Sergeant, Korean Augmentaion to the US Army, Camp Humphreys	Dec 2020 - Jun 2022
SAENA, SNU CLS Ambassador	Apr 2019 - Aug 2020
Student Council, Department of Major and Autonomy	Mar - Nov 2019
International Olympiad in Informatics Training Camp in Korea	Jul - Aug 2016, Jan 2017
- Studied advanced data structures and algorithms	