

Yoonsang Lee

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INTERESTS	Natural Language Processing, Retrieval-Augmented LM, Human-Centered NLP	
EDUCATION	Seoul National University	Mar 2019 - Present
	B.S. in Computer Science and Engineering	<i>Seoul, Korea</i>
	B.S. in Mathematical Sciences	
	* includes 1.5 year mandatory military service	
	The University of Texas at Austin	Aug - Dec 2023
	Exchange Student in Computer Science	<i>Austin, TX</i>
	Gyeonggi Science High School for the Gifted	Mar 2016 - Feb 2019
	High school for students specialized in mathematics and science	<i>Suwon, Korea</i>
PUBLICATIONS	Yoonsang Lee* , Pranav Atreya*, Xi Ye, Eunsol Choi, Crafting In-context Examples according to LMs' Parametric Knowledge, <i>arXiv</i> 2023	
	Yoonsang Lee* , Dongryeol Lee*, Kyomin Jung, MILAB at PragTag-2023: Enhancing Cross-Domain Generalization through Data Augmentation with Reduced Uncertainty, EMNLP @ ArgMining 2023	
	*: equal contribution	
RESEARCH EXPERIENCE	UT Austin NLP Lab	Aug 2023 - Present
	Research Assistant (Advisor: Dr. Eunsol Choi)	
	– Worked on project of various prompting strategies under multi-answer QA tasks, with focus on language model's parametric knowledge regarding in-context examples.	
	Language and Data Intelligence Lab	Jul - Oct 2023
	Research Assistant (Advisor: Dr. Seungwon Hwang)	
	– Enhanced performance of dense retrieval on unseen domains by incorporating diverse search intents within synthetic query generation process.	
	Machine Intelligence Lab	Jul 2022 - Jul 2023
	Research Assistant (Advisor: Dr. Kyomin Jung)	
	– Suggested ensemble schema to reduce uncertainty while performing data augmentation for pragmatic tagging. Ranked 1st on zero-shot track at ArgMining workshop.	
	Naver Clova AI , <i>Research Intern</i>	Jan - Feb 2023
	– Implemented causal deep learning with alternating transformer on common DAG datasets.	
TEACHING	Algorithms, <i>Teaching Assistant</i>	Spring 2024
	Computer Architecture, <i>Teaching Assistant</i>	Spring 2023
	Electrical and Electronic Circuits, <i>Teaching Assistant</i>	Fall 2020
	Invited talk at SNUE Gifted Science Education Center	Spring, Fall 2019

HONORS AND AWARDS	Semicon Scholarship - 4,500 USD in total	2023 - 2024
	Merit Based Scholarship - 7,800 USD over four years	2019 - 2024
	Army Commendation Medal	2022
	4th Place, Selected Topic Seminar 2 Presentation	2019
	Silver, Korea Olympiad in Informatics	2018
PROJECTS	Private Mobile Chatbot Application	Spring 2023
	– Developed android chatbot application for automatic and private response of customer complaints. Implemented with homomorphic encryption, MPNet, and ChatGPT.	
	Modality Translation through Conditional Encoder-Decoder	Spring 2023
	– Designed general architecture that doesn't rely on specific latent encoder-decoder architecture and provides more accurate latent space prediction across different modalities.	
	NowSee, Real-time Weather Community	Fall 2022
	– Developed web service for real-time weather community, where users can share live weather information and statistics.	
	Finding Abandoned Animals with Keywords	Summer 2019
	– Developed precise search program for finding one's abandoned animal based on specified categories and similar keywords.	
	Collaborative Filtering Recommendation System Correcting User Bias Based on Comments-Rating Relationship	Spring 2018
	– Designed CNN based recommender system to unbias user ratings with movie comments.	
TECHNICAL SKILLS	Programming Languages C++, Java, Python, R, HTML/CSS, Javascript, Kotlin, SQL Frameworks and Tools PyTorch, ReactJS, Tensorflow, Django, Git, Docker Languages Korean (native), English (TOEFL 100 TOEIC 980)	
SELECTED COURSEWORK	Natural Language Processing, Information Retrieval and Web Search, Human-Computer Interaction, ML for Visual Understanding, Statistical Computing, Creative Integrated Design	
EXTRA-CURRICULAR	LikeLion at SNU	Mar - Nov 2022
	– Studied HTML/CSS, ReactJS, Django for web development	
	Sergeant, Korean Augmentaion to the US Army, <i>Camp Humphreys</i>	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	