

TAEYOON KWON

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Research Interest

Natural Language Processing, Machine Learning

Reasoning & Planning, LLM Agents, Embodied AI, Code LLMs, AI for Science

EDUCATION

Yonsei University | Advisor: Jinyoung Yeo

Sep. 2023 - Present

M.S. in Artificial Intelligence

Hanyang University (ERICA)

Mar. 2017 - Feb. 2023

B.S. in Computer Science, Summa Cum Laude

GPA: 3.75/4.0

Republic of Korea Army

Jan. 2018 - Sep. 2019

Seargent

Publications & Preprints

(* Equal contribution)

Preprint

[P2] Embodied Agents Meet Personalization: Exploring Memory Utilization for Personalized Assistance [paper][webpage]

Taeyoon Kwon*, Dongwook Choi*, Sunghwan Kim, Hyojun Kim, Seungjun Moon, Beong-woo Kwak, Kuan-Hao Huang, Jinyoung Yeo

Arxiv preprint. 2025

[P1] Web-Shepherd: Advancing PRMs for Reinforcing Web Agents [paper]

Hyungjoo Chae*, Sunghwan Kim*, Junhee Cho*, ..., Taeyoon Kwon, ..., Jinyoung Yeo

Arxiv preprint. 2025

Refereed Conference Paper

[C8] Designing Memory-Augmented AR Agents for Spatiotemporal Reasoning in Personalized Task Assistance [paper]

Dongwook Choi, Taeyoon Kwon, Dongil Yang, Hyojun Kim, Jinyoung Yeo

XRMemory Workshop, IEEE ISMAR 2025

[C7] Rethinking Reward Model Evaluation Through the Lens of Reward Overoptimization [paper]

Sunghwan Kim*, Dongjin Kang*, Taeyoon Kwon, Hyungjoo Chae, Jungsoo Won, Dongha Lee, Jinyoung Yeo

ACL'25 (Oral): The 63 rd Annual Meeting of the Association for Computational Linguistics. 2025

[C6] Towards Lifelong Dialogue Agents via Timeline-based Memory Management [paper]

Kai Tzu-iunn Ong*, Namyoung Kim*, Minju Gwak, Hyungjoo Chae, Taeyoon Kwon, Yohan Jo, Seung-won Hwang, Dongha Lee, Jinyoung Yeo

NAACL'25: The 2025 Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics. 2025

[C5] Coffee-Gym: An Environment for Evaluating and Improving Natural Language Feedback on Erroneous Code [paper][demo]

Hyungjoo Chae*, Taeyoon Kwon*, Seungjun Moon*, Yongho Song, Dongjin Kang, Kai Tzu-iunn Ong, Beong-woo Kwak, Seonghyeon Bae, Seung-won Hwang, Jinyoung Yeo

EMNLP'24: The 2024 Conference on Empirical Methods in Natural Language Processing. 2024

[C4] Language Models as Compilers: Simulating Pseudocode Execution Improves Algorithmic Reasoning in Language Models [paper]

Hyungjoo Chae, Yeonghyeon Kim, Seungone Kim, Kai Tzu-iunn Ong, Beong-woo Kwak, Moohyeon Kim, Seonghwan Kim, Taeyoon Kwon, Jiwan Chung, Youngjae Yu, Jinyoung Yeo

EMNLP'24: The 2024 Conference on Empirical Methods in Natural Language Processing. 2024

[C3] Can Large Language Models be Good Emotional Supporter? Mitigating Preference Bias on Emotional Support Conversation [paper]

Dongjin Kang*, Sunghwan Kim*, **Taeyoon Kwon**, Seungjun Moon, Hyunsouk Cho, Youngjae Yu, Dongha Lee, Jinyoung Yeo Outstanding Paper Award ACL'24: The 62nd Annual Meeting of the Association for Computational Linguistics. 2024

[C2] Large Language Models are Clinical Reasoners: Reasoning-Aware Diagnosis Framework with Prompt-Generated Rationales [paper]

Taeyoon Kwon*, Kai Tzu-iunn Ong*, Dongjin Kang, Seungjun Moon, Jeong Ryong Lee, Dosik Hwang, Yongsik Sim, Beomseok Sohn, Dongha Lee, Jinyoung Yeo

AAAI'24: The 38th Annual AAAI Conference on Artificial Intelligence. 2024

[C1] Dialogue Chain-of-Thought Distillation for Commonsense-aware Conversational Agents [paper]

Hyungjoo Chae*, Yongho Song*, Kai Tzu-iunn Ong, **Taeyoon Kwon**, Minjin Kim, Youngjae Yu, Dongha Lee, Dongyeop Kang, Jinyoung Yeo

EMNLP'23: The 2023 Conference on Empirical Methods in Natural Language Processing. 2023

Refereed Journal Paper

[J1] Multi-task Deep Learning for Joint Detection of Necrotizing Viral and Non-infectious Retinitis from Common Blood and Serology Test Data [paper]

Kai Tzu-iunn Ong*, Taeyoon Kwon*, Harok Jang, Min Kim, Christopher Seungkyu Lee, Suk Ho Byeon, Sung Soo Kim, Jinyoung Yeo, Eun Young Choi

IOVS: Investigative Ophthalmology & Visual Science, 2024.

Academic Services

Reviewer

ACL ARR	Feb. 2025, Oct., Dec. 2024
Teaching Assistant (Academic)	
Natural Language Processing (CAS3301) Yonsei University, Seoul, South Korea	Spring. 2025
Introduction to Computing (CAS1103) Yonsei University, Seoul, South Korea	Spring. 2025
Introduction to Artificial Intelligence (AAI2250) \mid Yonsei University, South Korea	Fall. 2024
Natural Language Processing (AAI3301) Yonsei University, Seoul, South Korea	Spring. 2024
Teaching Assistant (Industrial)	
Introduction to Natural Language Processing SKT Academy, Seoul, South Korea	Jul. 2024, Aug. 2023
AI Expert Class Samsung, Seoul, South Korea	Jul. 2025, Jul. 2024
Awards & Honors	
Outstanding Paper Award ACL'24	2024
AI Graduate School Support Scholarship Yonsei University	2023
Summa Cum Laude Hanyang ERICA University	2023
Academic Excellence Scholarship Hanyang ERICA University	2022-2, 2020-2, 2017-2, 2017-1
Research & Work Experience	

Market Designers Inc. - Tutoring | Seoul, South Korea

Part-time Research Scientist and NLP Engineer

- Lead project solving real-world scenarios by deploying LLM-driven applications
- Contribute to development of LLM-based English tutoring system
- Participate in constructing a continuous integration system for chatbot content

Mar. 2023 - Aug. 2024

Convei Lab | Yonsei University, Seoul, South Korea

 $Under graduate\ Research\ Intern$

- Advisor: Jinyoung Yeo
- Led project developing novel framework for diagnosis leveraging LLMs' reasoning capabilities
- $\bullet \ \ {\rm Co\text{-}led\ project\ applying\ ML/DL\ techniques\ in\ medical\ domain,\ resulting\ in\ journal\ publication\ [J1]}$

Oct. 2022 - Sep. 2023