

BEONG-WOO KWAK

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RESEARCH INTERESTS

My research interest is in the field of NLP. I currently focus on Conversational AI where knowledge, reasoning and interaction come into play. Especially, I am interested in

- (1) **Personalized Agent** that can perform/develop/be maintained in lifelong manner,
- (2) **Code/Tool-learning**,
- (3) **Efficient, scalable training/evaluation** mechanisms under evolving environments.

EDUCATION

Yonsei University, Seoul, Republic of Korea Ph.D. Student, Artificial Intelligence ; GPA: 4.15/4.5 Advised by Prof. Jinyoung Yeo	Mar 2022 - Current
Yonsei University, Seoul, Republic of Korea M.S., Artificial Intelligence ; GPA: 4.20/4.5 Advised by Prof. Jinyoung Yeo	Mar 2020 - Feb 2022
University of California, Santa Cruz, The United States of America Exchange Student Program	Jan 2018 - Jul 2018
Yonsei University, Seoul, Republic of Korea B.S., Computer Science ; Major GPA: 3.86/4.5 Compulsory military service in the Republic of Korea Army (Oct 2015- Jul 2017)	Mar 2014 - Feb 2022

PUBLICATIONS (* Denotes equal contribution)

WORK-IN-PROGRESS

[1] **Learning through Interaction: Improving Self-evolving Agent via Reflective Memory**

UNDER REVIEW

[1] **Embodied Agents Meet Personalization: Exploring Memory Utilization for Personalized Assistance**

CONFERENCES

- | | |
|---|----------------------------|
| [12] Web-Shepherd: Advancing PRMs for Reinforcing Web Agents
Hyunjoo Chae, Sunghwan Kim, Junhee Cho, Seungone Kim, Seungjun Moon,
Gyeom Hwangbo, Dongha Lim, Minjin Kim, Yeonjun Hwang, Minju Gwak,
Dongwook Choi, Minseok Kang, Gwanhoon Im, ByeongUng Cho, Hyojun Kim,
Jun Hee Han, Taeyoon Kwon, Minju Kim, <u>Beong-woo Kwak</u> , Dongjin Kang,
Jinyoung Yeo | NeurIPS 2025 |
| [11] ToolHaystack: Stress-Testing Tool-Augmented Language Models in Realistic Long-Term Interactions
<u>Beong-woo Kwak</u> , Minju Kim, Dongha Lim, Hyunjoo Chae, Dongjin Kang,
Sunghwan Kim, Dongil Yang, Jinyoung Yeo | EMNLP 2025
Findings |
| [10] The Long CoT Collection: A Fully Open Dataset for Initializing Large Reasoning Models
Hyunjoo Chae, Dongjin Kang, Jihyuk Kim, <u>Beong-woo Kwak</u> ,
Sunghyun Park, Haeju Park, Jinyoung Yeo, Moontae Lee, Kyungjae Lee | ACL 2025
Industry Track |

[9] Can You Share Your Story? Modeling Clients' Metacognition and Openness for LLM Therapist Evaluation Minju Kim, Dongje Yoo, Yeonjun Hwang, Minseok Kang, Namyong Kim, Minju Gwak, Beong-woo Kwak, Hyunjoo Chae, Harim Kim, Yunjoong Lee, Min Hee Kim, Dayi jung, Kyong-Mee Chung, Jinyoung Yeo	ACL 2025 Findings
[8] LLM Meets Scene Graph: Can Large Language Models Understand and Generate Scene Graphs? A Benchmark and Empirical Study Dongil Yang, Minjin Kim, Sunghwan Kim, <u>Beong-woo Kwak</u> , Minjun Park, Jinseok Hong, Woontack Woo, Jinyoung Yeo	ACL 2025
[7] Do LLMs Have Distinct and Consistent Personality? TRAIT: Personality Testset designed for LLMs with Psychometrics Seungbeen Lee, Seungwon Lim, Seungju Han, Giyeong Oh, Hyunjoo Chae, Jiwan Chung, Minju Kim, <u>Beong-woo Kwak</u> , Yeonsoo Lee, Dongha Lee, Jinyoung Yeo, Youngjae Yu	NAACL 2024 Findings
[6] Language Models as Compilers: Simulating Pseudocode Execution Improves Algorithmic Reasoning in Language Models Hyunjoo Chae, Yeonghyeon Kim, Seungone Kim, Kai Tzu-iunn Ong, <u>Beong-woo Kwak</u> , Moohyeon Kim, Seonghwan Kim, Taeyoon Kwon, Jiwan Chung, Youngjae Yu, Jinyoung Yeo	EMNLP 2024
[5] Coffee-Gym: An Environment for Evaluating and Improving Natural Language Feedback on Erroneous Code Hyunjoo Chae, Taeyoon Kwon, Seungjun Moon, Yongho Song, Dongjin Kang, Kai Tzu-iunn Ong, <u>Beong-woo Kwak</u> , Seonghyeon Bae, Seung-won Hwang, Jinyoung Yeo	EMNLP 2024
[4] Pearl: A Review-driven Persona-Knowledge Grounded Conversational Recommendation Dataset Minjin Kim, Minju Kim, Hana Kim, Beong-woo Kwak, Soyeon Chun, Hyunseo Kim, SeongKu Kang, Youngjae Yu, Jinyoung Yeo, Dongha Lee	ACL 2024 Findings
[3] Modularized Transfer Learning with Multiple Knowledge Graphs for Zero-shot Commonsense Reasoning Yu Jin Kim, <u>Beong-woo Kwak</u> , Youngwook Kim, Seung-won Hwang, Reinald Kim Amplayo, Jinyoung Yeo	NAACL 2022
[2] TrustAL: Trustworthy Active Learning using Knowledge Distillation <u>Beong-woo Kwak</u> , Youngwook Kim, Yu Jin Kim, Seung-won Hwang, Jinyoung Yeo	AAAI 2022
[1] Dual Task Framework for Improving Persona-grounded Dialogue Dataset Minju Kim*, <u>Beong-woo Kwak*</u> , Youngwook Kim, Hong-in Lee, Seung-won Hwang, Jinyoung Yeo	AAAI 2022

EXPERIENCES

COMPANY EXPERIENCES	
Microsoft Research Asia (MSRA) <i>Research Scientist Intern, Beijing, China</i> Government funded collaborative research program (IITP). Worked on Self-evolving tool/search agent and Reinforcement learning.	Jun 2025 - Dec 2025
Amazon AGI Foundational Models Group <i>Applied Scientist Intern, Sunnyvale, CA, USA</i> Return Internship. Worked on Code LLMs.	Jun 2024 - Sep 2024
Amazon Alexa AI <i>Applied Scientist Intern, Sunnyvale, CA, USA</i>	Jun 2023 - Sep 2023

- Worked on Tool-learning.

Market Designers.Inc
Research Scientist, Seoul, Korea

Apr 2022 - Jul 2022

- Worked on developing English tutoring, educating AI.

42 Maru.Inc
Question Answering Engineer, Seoul, Korea

Aug 2019 - Dec 2019

- Worked on extractive summarization, NER system, and Korean MRC.

ACADEMIC SERVICE

Reviewer: AAAI, EMNLP, ACL, NAACL

Teaching Experiences:

- NVIDIA (Teaching Assistant on NLP)
- Teaching Assistant at Yonsei Univ: Text and Language Understanding, Big Data, Natural Language Processing

HONORS & SCHOLARSHIPS

Encouragement Prize Ministry of Trade, Industry and Energy, Korea
 Korea Capstone Design Fair
 As a representative of Yonsei University.

Top Prize Computer Science Department, Yonsei Univ
 Software Capstone Design

Top Presentation Prize College of Engineering, Yonsei Univ
 Yonsei Creative Exhibition Presentation

Student Teaching Assistant Scholarship Department of Artificial Intelligence, Yonsei Univ
 Head Professor TA

SKILLS

LANGUAGE

- Korean (Native)
- English (Fluent)

PROGRAMMING SKILLS

- Programming Languages: Python, Java
- ML/DL Frameworks: Pytorch, Transformers, VLLM, Ollama, LangChain, LLaMA Factory, Scikit Learn, Keras, mxeval
- Other Tools & Skills: Vim, Git, Latex, Shell scripts, Docker (Managing the GPU cluster of Language&AGI Lab, Yonsei University.)
- Operating Systems: Linux (Ubuntu), macOS, Windows