

HYUNGJOO CHAE

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EDUCATION

Georgia Institute of Technology

Ph.D. in Computer Science

Atlanta, Georgia

2025-Present

- Advisor: Alan Ritter
- Research Areas: GUI Agents

Yonsei University

M.S. in Computer Science

Seoul, South Korea

2023-2025

- Advisor: Jinyoung Yeo
- Research Areas: Digital Agents, RL for Long-horizon Tasks, Code LLMs

Yonsei University

B.S. in Computer Science

Seoul, South Korea

2019-2022

- Graduation Project: Commonsense-augmented Dialogue Summarization
- Advisor: Jinyoung Yeo

PUBLICATIONS

ToolHaystack: Stress-Testing Tool-Augmented Language Models in Realistic Long-Term Interactions

Beong-woo Kwak, Minju Kim, Dongha Lim, **Hyunjoo Chae**, Dongjin Kang, Sunghwan Kim, Dongil Yang, Jinyoung Yeo

EMNLP 2025 Findings

[Paper]

Evaluating Robustness of Reward Models for Mathematical Reasoning

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

ACL 2025

[Paper]

Can You Share Your Story? Modeling Clients' Metacognition and Openness for LLM Therapist Evaluation

Minju Kim, Dongje Yoo, Yeonjun Hwang, Minseok Kang, Namyoung 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

[Paper]

Towards Lifelong Dialogue Agents via Relation-aware Memory Construction and Timeline-augmented Response Generation

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

NAACL 2025

[Paper]

The BiGGen Bench: A Principled Benchmark for Fine-grained Evaluation of Language Models with Language Models

Seungone Kim, Juyoung Suk, Ji Yong Cho, Shayne Longpre, ... **Hyunjoo Chae** ..., Bill Yuchen Lin, Sean Welleck, Graham Neubig, Moontae Lee, Kyungjae Lee, Minjoon Seo

NAACL 2025, Best Paper Award

[Paper]

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, Beong-woo Kwak, Yeonsoo Lee, Dongha Lee, Jinyoung Yeo, Youngjae Yu

NAACL 2025 Findings

[Paper]

Web Agents With World Models: Learning and Leveraging Environment Dynamics in Web Navigation

Hyunjoo Chae, Namyoung Kim, Kai Tzu-iunn Ong, Minju Gwak, Gwanwoo Song, Jihoon Kim, Sunghwan Kim, Dongha Lee, Jinyoung Yeo

ICLR 2025 / NeurIPS 2024 Sys2Reasonig at Scale Workshop

[Paper]

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, Seung-won Hwang, Jinyoung Yeo

EMNLP 2024

[Paper] [Code]

Language Models as Compilers: Simulating Pseudocode Execution Improves Algorithmic Reasoning in Language Models

Hyunjoo 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 2024 / ACL 2024 NLRSE Workshop

[Paper] [Code]

Evidence-Focused Fact Summarization for Knowledge-Augmented Zero-Shot Question Answering

Sungho Ko*, Hyunjin Cho*, **Hyunjoo Chae**, Jinyoung Yeo, Dongha Lee

EMNLP 2024

[Paper]

VERIFINER: Verification-augmented NER via Knowledge-grounded Reasoning with Large Language Models

Seoyeon Kim*, Kwangwook Seo*, **Hyunjoo Chae**, Jinyoung Yeo, Dongha Lee

ACL 2024

[Paper]

Dialogue Chain-of-Thought Distillation for Commonsense-aware Conversational Agents

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

EMNLP 2023

[Paper] [Code] [Demo]

CoTEVer: Chain of Thought Prompting Annotation Toolkit for Explanation Verification

Seungone Kim, SeJune Joo, Yul Jang, **Hyungjoo Chae**, Jinyoung Yeo

EACL 2023 System Demonstrations

[Paper] [Code]

TUTORING: Instruction-grounded Conversational Agent for Language Learners

Hyungjoo Chae, Minjin Kim, Chaehyeong Kim, Won Seok Jeong, Hye Soong Kim, June Myung Lee, Jinyoung Yeo

AAAI 2023: System Demonstrations

[Paper] [Demo]

Mind the Gap! Injecting Commonsense Knowledge for Abstractive Dialogue Summarization

Seungone Kim*, Se June Joo*, **Hyungjoo Chae***, Chaehyeong Kim*, Seung-won Hwang, Jinyoung Yeo

COLING 2022

[Paper] [Code]

PREPRINTS

Web-Shepherd: Advancing PRMs for Reinforcing Web Agents

Hyungjoo Chae, Sunghwan Kim, Junhee Cho, Seungone Kim, Seungjun Moon, ..., Jinyoung Yeo

arXiv preprint / Submitted to NeurIPS 2025

[Paper]

INDUSTRIAL EXPERIENCE

- | | |
|-----------------------|--|
| Oct. 2024 – Apr. 2025 | • LG AI Research (Advisor: Kyungjae Lee and Moontae Lee) Inference-time scaling with MCST and reflective reasoning. |
| Jul. 2022 – Nov. 2023 | • Tutoring, Market Designers Inc. (Advisor: Jinyoung Yeo) Built an AI tutor for English learners. |
| Jul. 2020 – Aug. 2020 | • Dino Plus Inc. Constructed an Alzheimer dataset for AI diagnosis. |

PROFESSIONAL SERVICES

Reviewer: NACCL 2024, ACL 2024, EMNLP 2024 (**Outstanding reviewer**), NAACL 2025

Teaching Assistant:

- | | |
|--|-----------------------|
| • Introduction to Artificial Intelligence , Yonsei University | Sep. 2023 - Dec. 2023 |
| • Natural Language Processing and ChatGPT , Yonsei University | Sep. 2023 - Dec. 2023 |
| • Introduction to Natural Language Processing , SKT Academy | Aug. 2023 |
| • Big Data , Yonsei University | Mar. 2023 - Jul. 2023 |
| • Software Capstone Design , Yonsei University | Mar. 2023 - Jul. 2023 |

SKILLS

- | | |
|------------------------------------|--|
| Programming Languages | • Python, Java, C/C++, JavaScript. |
| Deep Learning Frameworks and Tools | • PyTorch, Tensorflow, vLLM, TGI, OpenLLM, Langchain, DeepSpeed, BitsAndBytes. |

SKILLS (continued)

Web Dev	• React.js, Firebase, Node.js, Django, HTML, CSS.
Natural Languages	• English (professional working proficiency), Korean (native)

REFERENCES

Jinyoung Yeo

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College of Computing

Yonsei University

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