

HYUNGJOO CHAE

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EDUCATION

Yonsei University

M.S. in Computer Science

Seoul, South Korea

2023-Present

- 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

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

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

NeurIPS 2024 Sys2Reasonig at Scale Workshop / ICLR 2025 Submission

[Paper]

COFFEE-GYM: An Environment for Evaluating and Improving Natural Language Feedback on Erroneous Code

Hyungjoo Chae^{*}, Taeyoon Kwon^{*}, Seungjun Moon^{*}, Yongho Song, Dongjin Kang, Kai Tzu-iunn Ong, Seung-won Hwang, Jinyoung Yeo

In Proceedings of EMNLP 2024.

[Paper] [Code]

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

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

In Proceedings of EMNLP 2024 (ACL 2024 NLRSE Workshop).

[Paper] [Code]

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

Sungho Ko^{*}, Hyunjin Cho^{*}, **Hyungjoo Chae**, Jinyoung Yeo, Dongha Lee

In Proceedings of EMNLP 2024.

[Paper]

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

Seoyeon Kim^{*}, Kwangwook Seo^{*}, **Hyungjoo Chae**, Jinyoung Yeo, Dongha Lee

In Proceedings of ACL 2024

[Paper]

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

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

In Proceedings of 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

In Proceedings of 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

In Proceedings of AACL 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

In Proceedings of COLING 2022.

[Paper] [Code]

PREPRINTS

Evaluating Robustness of Reward Models for Mathematical Reasoning

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

Arxiv preprint

[Paper]

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

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

Arxiv preprint

[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, ... **Hyungjoo Chae** ..., Bill Yuchen Lin, Sean Welleck, Graham Neubig, Moontae Lee, Kyungjae Lee, Minjoon Seo

Arxiv preprint

[Paper]

Do LLMs Have Distinct and Consistent Personality? TRAIT: Personality Testset designed for LLMs with Psychometrics

Seungbeen Lee^{*}, Seungwon Lim^{*}, Seungju Han, Giyeong Oh, **Hyungjoo Chae**, Jiwan Chung, Minju Kim, Beong-woo Kwak, Yeonsoo Lee, Dongha Lee, Jinyoung Yeo, Youngjae Yu

Arxiv preprint

[Paper]

INDUSTRIAL EXPERIENCE

- | | |
|-----------------------|--|
| Oct. 2024 – Present | • 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. |
| Web Dev | • React.js, Firebase, Node.js, Django, HTML, CSS. |
| Natural Languages | • English (professional working proficiency), Korean (native) |

REFERENCES

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