

Jinu Lee

Email ◇ Homepage ◇ GitHub ◇ LinkedIn

RESEARCH INTERESTS

My research focuses on **semantics of reasoning**, aiming to understand and improve natural language reasoning via neural large language models and symbolic methods. Specific topics include:

- Defining and obtaining symbolic representations that capture the nature of the reasoning tasks
- Fine-grained evaluation of reasoning traces
- Improving the reasoning capability of LLMs, from solution space-search to feedback-based learning

EDUCATION

University of Illinois Urbana-Champaign	Urbana-Champaign, IL
Ph.D., Computer Science / Advised by: Dr. Julia Hockenmaier	08/2024 - Present
Seoul National University	Seoul, Rep. of Korea
B.S., Computer Science & Engineering	03/2018 - 08/2024

WORK EXPERIENCE

Microsoft Research (RiSE)	Redmond, WA
Research Intern	05/2025 - 08/2025
• Data augmentation and RL for a 32B LLM specialized in program verification and theorem proving	
LBOX	Seoul, Rep. of Korea
Research Engineer	07/2023 - 06/2024
• Neuro-symbolic reasoning and legal information extraction	
NCSoft	Seongnam, Rep. of Korea
Researcher	07/2020 - 11/2020
• Korean dependency parsers and resources	

PUBLICATIONS

Conference proceedings.

Jinu Lee, Julia Hockenmaier (2025). Evaluating Step-by-step Reasoning Traces: A Survey. *EMNLP 2025 Findings*.

Chaeun Kim, **Jinu Lee**, Wonseok Hwang (2025). LegalSearchLM: Rethinking Legal Case Retrieval as Legal Elements Generation. *EMNLP 2025 Main*.

Jinu Lee, Qi Liu, Runzhi Ma, Vincent Han, Ziqi Wang, Heng Ji, Julia Hockenmaier (2025). Entailment-Preserving FOL Representations for Natural Language Entailment. *ACL 2025 Main*.

Jinu Lee, Wonseok Hwang (2025). SymBa: Symbolic Backward Chaining for Structured Natural Language Reasoning. *NAACL 2025 Main*.

Youngwon Lee*, **Jinu Lee***, Seung-won Hwang (2023). Learning to Rank Generation with Pairwise Partial Rewards. *EMNLP 2023 Main*.

Preprints.

Jinu Lee, Kyoung-woon On, Simeng Han, Arman Cohan, Julia Hockenmaier (2025). Evaluating Legal Reasoning Traces with Legal Issue Trees. *arXiv preprint*.

Priyanka Kargupta*, Stella Li*, Haocheng Wang, **Jinu Lee**, Shan Chen, Orevaoghene Ahia, Dean Light, Thomas L. Griffiths, Max Kleiman-Weiner, Jiawei Han, Asli Celikyilmaz, Yulia Tsvetkov (2025). Cognitive Foundations for Reasoning and Their Manifestation in LLMs. *arXiv preprint*.

Seungone Kim, Ian Wu*, **Jinu Lee***, Xiang Yue, Seongyun Lee, Mingyeong Moon, Kiril Gashteovski, Caroline Lawrence, Julia Hockenmaier, Graham Neubig, Sean Welleck (2025). Scaling Evaluation-time Compute with Reasoning Models as Process Evaluators. *arXiv preprint*.

*: equal contribution.

TEACHING, TALKS, AND SERVICE

(Teaching) CS440 Artificial Intelligence

Teaching Assistant

Urbana, IL

08/2025-12/2025

(Talk) Coupling Formal Logic and Natural Language Reasoning

Human-AI Collaborative Coding Lab @ Yonsei/KNU/UoS/SKKU

Seoul, Rep. of Korea

02/2025

(Reviewer) ACL Rolling Review (ARR)

10/2024-Present

(Reviewer) Conference on Language Modeling (CoLM)

03/2025-Present

AWARDS AND HONOURS

KFAS Overseas Ph.D. Scholarship

Awarded by *Korea Foundation of Advanced Studies*

08/2024 - Present

Presidential Science Scholarship for Undergraduates

Awarded by *Korea Student Aid Foundation*

03/2018 - 08/2023