# **Takyoung Kim**

## Ph.D. Student at the University of Illinois Urbana-Champaign (UIUC)

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 **ሯ** Google Scholar

#### Interests

My research interest lies in the intersection of Natural Language Processing and Communication. I am particularly interested in building communicative language models (LMs) that can understand social and cognitive context, evaluating preference during interactions, and exploring how LMs compose knowledge both from parametric and external sources.

#### Education

University of Illinois Urbana-Champaign, *Urbana*, *IL*, *USA* 

Aug 2024 - Present

Doctor of Philosophy, Computer Science

Advisor: Dilek Hakkani-Tür

Korea University, Seoul, South Korea

Sep 2020 - Aug 2022

Master of Engineering, Industrial Management Engineering Advisor: Pilsung Kang (currently at Seoul National University)

Thesis: Relaxing Unrealistic Assumptions of Dataset and Evaluation Metric in Dialogue State Tracking

Sungkyunkwan University, Seoul, South Korea

Mar 2013 - Aug 2020

Bachelor of Science in Engineering, Interdisciplinary Program of Convergent Software Bachelor of Media & Communication (*Leave of absence for military service: Feb 2015 - Nov 2016*)

# Research Experience

Amazon | Alexa Conversational Modeling & Learning Team  $\,\,$  Bellevue, WA, USA  $\,\,$ 

May 2025 (Expected)

Applied Scientist Intern (Mentor: Chengyuan Ma)

University of Illinois Urbana-Champaign | Conversational AI Lab Urbana, IL, USA 🗹

Aug 2024 - Present

Graduate Research Assistant (Advisor: Dilek Hakkani-Tür) Working on cognitive interactions in real-world environments

Korea University | Data Science & Business Analytics Lab Seoul, South Korea 🗹

Apr 2024 - Jul 2024

Research Associate (Advisor: Pilsung Kang)

Worked on retrieval-augmented language models specialized in Korean digital media

LG AI Research | Advanced Machine Learning Lab Seoul, South Korea 🗹

Apr 2023 - Mar 2024

Research Intern (Mentors: Kyungjae Lee, Moontae Lee)

Worked on improving long-form responses of retrieval-augmented language models via planning [1]

NAVER AI Lab | Language Research Team Seongnam, South Korea 🗗

Jul 2022 - Jan 2023

Research Intern (Mentor: Sungdong Kim)

Worked on revealing innate bias in task-oriented dialogue research via interactive study [2] Worked on constructing safety benchmark for sensitive questions [5] and social biases [4]

Korea University | Data Science & Business Analytics Lab Seoul, South Korea 🗹

Sep 2020 - Jun 2022

Graduate Research Assistant (Advisor: Pilsung Kang)

Worked on analyzing realistic biases and limitations of dialogue state tracking [7, 6, 3]

Developed algorithms and pipelines in various domains, such as news [8], car, and ocean waves

#### **Publications**

\* indicates equal contribution

[1] Learning to Explore and Select for Coverage-Conditioned Retrieval-Augmented Generation (\*\*) 

Takyoung Kim, Kyungjae Lee, Young Rok Jang, Ji Yong Cho, Gangwoo Kim, Minseok Cho, Moontae Lee 
Nations of the Americas Chapter of the Association for Computational Linguistics

Findings of NAACL 2025

[2] Revealing User Familiarity Bias in Task-Oriented Dialogue via Interactive Evaluation Takyoung Kim, Jamin Shin, Young-Ho Kim, Sanghwan Bae, Sungdong Kim

Workshop on NLP for Conversational AI (Oral, Best Paper Award)

NLP4

NLP4ConvAI, ACL 2024

January 2025 1 of 3 Takyoung Kim

[3]	<b>DSTEA:</b> Improving Dialogue State Tracking via Entity Adaptive Pre-training   Yukyung Lee, <u>Takyoung Kim</u> , Hoonsang Yoon, Pilsung Kang, Junseong Bang, Misuk Kim Knowledge-Based Systems (Q1, Impact Factor: 8.8)	KBS 2024
	Workshop on Knowledge Augmented Methods for NLP	KnowledgeNLP, KDD 2023
[4]	KoSBi: A Dataset for Mitigating Social Bias Risks Towards Safer Large Language M Hwaran Lee*, Seokhee Hong*, Joonsuk Park, <u>Takyoung Kim</u> , Gunhee Kim, Jung-Woo Ha Annual Meeting of the Association for Computational Linguistics (Industry Track)	odel Applications (4) ACL 2023
[5]	SQuARe: A Large-Scale Dataset of Sensitive Questions and Acceptable Response Machine Collaboration ()> Hwaran Lee*, Seokhee Hong*, Joonsuk Park, <u>Takyoung Kim</u> , Meeyoung Cha, Yejin Choi	-
	Eun-Ju Lee, Yong Lim, Alice Oh, Sangchul Park, Jung-Woo Ha Annual Meeting of the Association for Computational Linguistics (Oral, Best Paper Nomination)	ACL 2023
[6]	Oh My Mistake!: Toward Realistic Dialogue State Tracking including Turnback Utt <u>Takyoung Kim</u> , Yukyung Lee, Hoonsang Yoon, Pilsung Kang, Junseong Bang, Misuk Kim Towards Semi-Supervised and Reinforced Task-Oriented Dialog Systems	erances 🖹  SereTOD, EMNLP 2022
[7]	Mismatch between Multi-turn Dialogue and its Evaluation Metric in Dialogue State Takyoung Kim, Hoonsang Yoon, Yukyung Lee, Pilsung Kang, Misuk Kim Annual Meeting of the Association for Computational Linguistics (Short)	e Tracking 🖹
[8]	Building an Integrated Framework of Korean Text Summarization and Text-to-Spe Takyoung Kim, Jina Kim, Hyeongwon Kang, Subin Kim, Pilsung Kang Journal of Korean Institute of Industrial Engineers	eech (♣  JKIIE 2022
Hon	ors and Awards	
CS PhD Fellowship University of Illinois Urbana-Champaign		Aug 2024 - May 2025
Bes	t Paper Award ACL 2024 NLP for Conversational AI Workshop	Aug 2024
Bes	t Student Feedback Award, Research Ideation Contest Korea University	Feb 2021, Dec 2021
2nd	Place (2,500 USD), MyData Acting Hackathon Ministry of Science and ICT	Oct 2019
Me	rit-based Scholarship, Computer Science Coursework Sungkyunkwan University	Spring 2018, Fall 2018
Tea	ching Experience	
	<b>459101 Natural Language Processing</b> Hankuk University of Foreign Studies ching Assistant (Instructor: Yukyung Lee)	Feb 2024 - Jun 2024
	ustrial Machine Learning LG Electronics d Teaching Assistant (Instructor: Pilsung Kang)	Jan 2022 - Apr 2022
	earch Mentoring Hyundai Mobis earch Project Assistant (Instructor: Pilsung Kang)	Jul 2021 - Sep 2021
	ustrial Machine Learning and Deep Learning LG Innotek, SK Hynix Ching Assistant (Instructor: Pilsung Kang)	Jul 2021 - Aug 2021
Aca	demic Service	
	ference Reviewer	
	ions of the Americas Chapter of the Association for Computational Linguistics (NAACL) ral Information Processing Systems (NeurIPS)	2025 2024
Eur	opean Chapter of the Association for Computational Linguistics (EACL)	2024
Emj	pirical Methods in Natural Language Processing (EMNLP) - Industry Track	2023 - 2024
	oirical Methods in Natural Language Processing (EMNLP) ral Information Processing Systems (NeurIPS) - Datasets & Benchmarks	2023 - 2024 2022 - 2024

### Journal Reviewer

Knowledge-Based Systems 2023 - 2024

Others

ACL Rolling Review (ARR) 2023 - Present