

RESEARCH INTEREST

My research interest lies in the intersection of **human-AI interaction (HAI)** and **natural language processing (NLP)**, with a focus on aligning AI systems with human cognitive processes. Specifically, I (1) develop AI systems that interactively adapt knowledge delivery by modeling how users understand information, and (2) design cognitively grounded evaluation methods to assess how effectively AI systems can generate outputs aligned with human cognitive processes.

EMPLOYMENT EXPERIENCE

<b>Adobe Research</b> <i>Research Intern, Document Intelligence Lab</i> <i>Mentor: Alexa F Siu, Tong Sun</i>	<b>San Jose, CA, USA</b> May - Sept. 2024 [U1]
<b>Allen Institute for Artificial Intelligence (AI2)</b> <i>Research Scientist Intern, Semantic Scholar Team</i> <i>Mentor: Pao Siangliulue, Joseph Chee Chang, Jonathan Bragg, Kyle Lo</i>	<b>Seattle, WA, USA</b> May - Oct. 2023 [C10, C12]
<b>LG AI Research</b> <i>Research Scientist Intern, Advanced Machine Learning Lab</i> <i>Mentor: Moontae Lee, Kyungjae Lee</i>	<b>Seoul, Republic of Korea</b> Nov. 2022 – Mar. 2023 [C6]
<b>Electronics and Telecommunications Research Institute (ETRI)</b> <i>Graduate Research Assistant, Data Sciences Group</i> <i>Mentor: Yunbae Kim, Seungken Park</i>	<b>Daejeon, Republic of Korea</b> Mar. 2018 – Dec. 2019 [P1, P2, C1, C2]

EDUCATION

<b>KAIST</b> Ph.D. Candidate in Computer Science. Advisor: Juho Kim	<b>Daejeon, Republic of Korea</b> Sep. 2020 – Present
<b>Ewha Womans University</b> M.S. in Statistics (Applicational Statistics). Advisor: Dongwan Shin B.S. Major in Mathematics Education, Minor in Statistics; <i>Magna Cum Laude</i>	<b>Seoul, Republic of Korea</b> Mar. 2018 – Feb. 2020 Mar. 2014 – Feb. 2018
<b>University of California, Davis</b> Exchange student in Mathematics	<b>Davis, CA, USA</b> Sep. 2015 – Feb. 2016

PUBLICATIONS

Conference Papers in Submission (under review)

<b>[C15] Benchmarking Model Ability to Predict Preferences from Interactions</b> Tae Soo Kim, <b>Yoonjoo Lee</b> et al. <i>Under Review, 2025</i>	
<b>[C14] Mind the Blind Spots: A Focus-Level Evaluation Framework for LLM Reviews</b> Hyungyu Shin, Jingyu Tang, <b>Yoonjoo Lee</b> , Nayoung Kim, Hyunseung Lim, Ji Yong Cho, Hwajung Hong, Moontae Lee, Juho Kim <i>Under Review, 2025</i>	

## Conference and Journal Papers

### [C13] ARXIVDIGESTABLES: Synthesizing Scientific Literature into Tables using Language Models

Benjamin Newman\*, **Yoonjoo Lee**\*, Aakanksha Naik, Pao Siangliulue, Raymond Fok, Juho Kim, Daniel S Weld, Joseph Chee Chang, Kyle Lo

*EMNLP 2024: In 2024 Conference on Empirical Methods in Natural Language Processing.*

### [C12] The BiGGen Bench: A Principled Benchmark for Fine-grained Evaluation of Language Models with Language Models

Seungone Kim, Juyoung Suk, Ji Yong Cho, [18 authors], **Yoonjoo Lee**, [5 authors], Sean Welleck, Graham Neubig, Moontae Lee, Kyungjae Lee, Minjoon Seo

*NAACL 2025: In 2025 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, **Best Paper Award***

### [C11] One vs. Many: Comprehending Accurate Information from Multiple Erroneous and Inconsistent AI Generations

**Yoonjoo Lee**, Kihoon Son, Tae Soo Kim, Jisu Kim, John Joon Young Chung, Eytan Adar, Juho Kim

*FAccT 2024: In 2024 ACM Conference on Fairness, Accountability, and Transparency.*

### [C10] PaperWeaver: Enriching Topical Paper Alerts by Contextualizing Recommended Papers with User-collected Papers

**Yoonjoo Lee**, Hyeonsu B Kang, Matt Latzke, Juho Kim, Jonathan Bragg, Joseph Chee Chang, Pao Siangliulue

*CHI 2024: In 2024 CHI Conference on Human Factors in Computing Systems.*

### [C9] EvalLM: Interactive Evaluation of Large Language Model Prompts on User-Defined Criteria

Tae Soo Kim, **Yoonjoo Lee**, Jamin Shin, Young-Ho Kim, Juho Kim

*CHI 2024: In 2024 CHI Conference on Human Factors in Computing Systems.*

### [C8] VIVID: Human-AI Collaborative Authoring of Vicarious Dialogues from Lecture Videos

Seulgi Choi, Hyewon Lee, **Yoonjoo Lee**, Juho Kim

*CHI 2024: In 2024 CHI Conference on Human Factors in Computing Systems.*

### [C7] QASA: Advanced Question Answering on Scientific Articles

**Yoonjoo Lee**\*, Kyungjae Lee\*, Sunghyun Park, Dasol Hwang, Jaehyeon Kim, Hong-in Lee, Moontae Lee

*ICML 2023: In 40th International Conference on Machine Learning*

### [C6] Cells, Generators, and Lenses: Design Framework for Object-Oriented Interaction with Large Language Models

Tae Soo Kim, **Yoonjoo Lee**, Minsuk Chang, Juho Kim

*UIST 2023: In 2023 ACM Symposium on User Interface Software and Technology.*

### [C5] DAPIE: Interactive Step-by-Step Explanatory Dialogues to Answer Children's Why and How Questions

**Yoonjoo Lee**, Tae Soo Kim, Sundong Kim, Yohan Yun, Juho Kim

*CHI 2023: In 2023 CHI Conference on Human Factors in Computing Systems.*

### [C4] Promptiverse: Scalable Generation of Scaffolding Prompts Through Human-AI Hybrid Knowledge Graph Annotation

**Yoonjoo Lee**, John Joon Young Chung, Tae Soo Kim, Jean Y. Song, Juho Kim

*CHI 2022: In 2022 CHI Conference on Human Factors in Computing Systems.*

**[C3] Personalizing Ambience and Illusionary Presence: How People Use “Study with Me” Videos to Create Effective Studying Environments**

**Yoonjoo Lee**, John Joon Young Chung, Jean Y. Song, Minsuk Chang, Juho Kim

*CHI 2021: In 2021 CHI Conference on Human Factors in Computing Systems.*

**[C2] A Machine Learning Approach that meets Axiomatic Properties in Probabilistic Analysis of LTE Spectral Efficiency**

**Yoonjoo Lee**, Yunbae Kim, Seungken Park

*ICTC, Oct. 2019*

**[C1] Probabilistic Analysis of Spectral Efficiency for LTE based on PDCCH Measurement Data**

**Yoonjoo Lee**, Yunbae Kim, Yeonkyu Park, Seungken Park

*IEEE Communications Letters, vol. 23, no. 9, Sep. 2019*

**Extended Abstracts, Posters, and Workshop Papers**

**[P7] DocVoyager: Anticipating User's Information Needs and Guiding Document Reading through Question Answering**

**Yoonjoo Lee**, Nedim Lipka, Jack Wang, Puneet Mathur, Ryan Rossi, Tong Sun, Alexa F Siu

*CHI 2025 Late-Breaking Work*

**[P6] The Fourth Workshop on Scholarly Document Processing**

Tirthankar Ghosal, Amanpreet Singh, Anita Waard, Philipp Mayr, Aakanksha Naik, Orion Weller,

**Yoonjoo Lee**, Shannon Shen, Yanxia Qin

*ACL 2024 Workshop Co-organizer: In Proceedings of the Fourth Workshop on Scholarly Document Processing*

**[P5] How to Reflect Diverse People's Perspectives in Large-Scale LLM-based Evaluations?**

**Yoonjoo Lee**, Tae Soo Kim, Juho Kim

*CHI 2024 Workshop on Human-Centered Evaluation and Auditing of Large Language Models*

**[P4] LMCanvas: Object-Oriented Interaction to Personalize Large Language Model-Powered Writing Environments**

Tae Soo Kim, Arghya Sarkar, **Yoonjoo Lee**, Minsuk Chang, and Juho Kim

*CHI 2023 Workshop on Generative AI and HCI*

**[P3] Interactive Children's Story Rewriting Through Parent-Children Interaction**

**Yoonjoo Lee**, Tae Soo Kim, Minsuk Chang, Juho Kim

*ACL 2022 Workshop on Intelligent and Interactive Writing Assistant*

**[P2] XDesign: Integrating Interface Design into Explainable AI Education**

Hyungyu Shin, Nabila Sindi, **Yoonjoo Lee**, Jaeryoung Ka, Jean Y. Song, Juho Kim

*SIGCSE TS 2022 Posters*

**[P1] A Study on the Distribution Analysis of LTE Resource Block Usage from TSME Measurement Data**

**Yoonjoo Lee**, Yunbae Kim, Seungken Park

*KICS, Jun. 2018*

**MENTORING EXPERIENCE**

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**Heechan Lee**, Undergrad student, KAIST

**Yoonah Park**, Undergrad student, Seoul National University

Summer 2024 - current

Winter 2023 - current

Last Updated: May 3, 2025

<b>Jiho Kim</b> , Undergrad student, Calvin University	Summer 2024
<b>Yuewen Yang</b> , Master's student, Cornell Tech	Winter 2023
<b>Seulgi Choi</b> , Master's student, KAIST	Summer 2023
<b>Jisu Kim</b> , Undergrad student, KAIST >> Master's student, Georgia Tech	Winter 2023 - Summer 2023
<b>Yohan Yun</b> , Undergrad student, KAIST >> Master's student, KAIST	Winter 2021 - Summer 2022

## INVITED TALKS

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<b>Invited Talk at Purdue University</b> <i>Title: Adaptive Knowledge Understanding Support: Aligning AI Systems with Human Cognitive Processes</i>	April 2025
<b>Invited Talk at Pennsylvania State University</b> <i>Title: Adaptive Knowledge Understanding Support: Aligning AI Systems with Human Cognitive Processes</i>	March 2025
<b>Invited Talk at Allen Institute for Artificial Intelligence (AI2)</b> <i>Title: Personalized Knowledge Understanding Support: Aligning AI Systems with Human Cognitive Processes</i>	March 2025
<b>Invited Talk at Apple</b> <i>Title: Personalized Knowledge Understanding Support: Aligning AI Systems with Human Cognitive Processes</i>	March 2025
<b>Invited Talk at University of Pennsylvania</b> <i>Title: Personalized Knowledge Understanding Support: Aligning AI Systems with How Humans Understand Knowledge</i>	Feb. 2025
<b>Invited Talk at Center for Human-Computer Interaction at Virginia Tech</b> <i>Title: Personalized Knowledge Understanding Support: Aligning AI Systems with How Humans Understand Knowledge</i>	Jan. 2025
<b>Guest Lecture at KAIST CS475 ML for NLP</b> <i>Title: Data Use in LLMs and Human-centered Evaluation</i>	Dec. 2024
<b>Invited Talk at Google Explore CSR Journey of Research Workshop 2024</b> <i>Title: Personalized Knowledge Understanding Support: Aligning AI with How Humans Understand Knowledge</i>	Nov. 2024
<b>Invited Talk at HCI KOREA 2024: SIGCHI-Sponsored Top Conferences Session</b> <i>Title: DAPIE: Interactive Step-by-step Explanatory Dialogues to Answer Children's Why and How Questions</i>	Jan. 2024
<b>Technical Talk at NAVER AI LAB</b> <i>Title: Creating Interactive Dialogues to Answer Children's Why and How Questions</i>	Nov. 2023
<b>Invited Talk at UCSD Design Lab</b> <i>Title: Adapting Scaffolding to Support Knowledge Consumption through Interactive AI-Driven Systems</i>	Oct. 2023

## PROFESSIONAL SERVICES

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### Program Committee

- CHI LBW 2023

### Workshop Organizer

- 2024 ACL Science Document Processing Workshop
- 2022 KAIST-Google ExploreCSR

### Reviewer

- CHI 2022, 2023, 2024, 2025
- UIST 2022, 2023, 2024
- ICLR 2025
- EMNLP 2023
- ACL 2023
- IUI 2025
- CSCW 2023
- C&C 2022, 2024
- IEEE Transactions on Learning Technologies

### Student Volunteer

CHI 2022

## TEACHING EXPERIENCE

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<b>Introduction to Algorithms</b> <i>KAIST CS300 Teaching Assistant, Instructor: Sunghee Choi</i>	Spring 2024
<b>Introduction to Data Science</b> <i>KAIST CS492 Teaching Assistant, Instructor: Jaegil Lee</i>	Spring 2022
<b>Introduction to Social Computing</b> <i>KAIST CS473 Teaching Assistant, Instructor: Juho Kim</i>	Fall 2020, Fall 2021
<b>Time Series Analysis</b> <i>Ewha Womans University, Teaching Assistant, Instructor: Dongwan Shin</i>	Spring 2019
<b>Regression Analysis</b> <i>Ewha Womans University, Teaching Assistant, Instructor: Donghwan Lee</i>	Fall 2018

## HONORS, AWARDS, AND SCHOLARSHIPS

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<b>Best Presentation Award from SIGCHI Invited Papers Session</b> <i>SIGCHI Korea Local Chapter</i>	2024
<b>Research Assistant Scholarship</b> <i>College of Natural Sciences, Ewha Womans University</i>	2019
<b>Honors Scholarship</b> <i>College of Education, Ewha Womans University</i>	2014, 2015, 2016, 2017
<b>Dean's List</b> <i>College of Education, Ewha Womans University</i>	2014, 2015, 2016, 2017
<b>Ewha Womans University Alumnae Association Scholarship</b> <i>College of Education, Ewha Womans University</i>	2017

## REFERENCES

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<b>Juho Kim</b> <i>School of Computing</i> juhokim@kaist.ac.kr	Associate Professor <i>KAIST</i>
<b>Daniel S. Weld</b> <i>Paul G. Allen School of Computer Science &amp; Engineering</i> weld@cs.washington.edu	Professor Emeritus <i>University of Washington</i>
<b>Eytan Adar</b> <i>Information, School, Electrical Engineering and Computer Science</i> eadar@umich.edu	Associate Professor <i>University of Michigan</i>
<b>Moontae Lee</b> <i>Department of Information and Decision Sciences</i> moontae@uic.edu	Assistant Professor <i>University of Illinois at Urbana-Champaign</i>