

# YOONJOO LEE

[yoonjoo.lee@kaist.ac.kr](mailto:yoonjoo.lee@kaist.ac.kr) | [yoonjoolee.com](http://yoonjoolee.com)

## RESEARCH INTEREST

---

My research interest lies in the intersection of human-computer interaction (HCI) and natural language processing (NLP). I aim to help diverse users reach meaningful understanding by connecting new information to what they already know. I'm particularly interested in creating systems that guide AI agents to generate outputs aligned with human knowledge acquisition processes, thereby reducing the gap between the support humans need and the explanations AI agents provide.

## EDUCATION

---

### KAIST

Ph.D. Candidate in Computer Science. Advisor: Juho Kim

Daejeon, Republic of Korea

Sep. 2020 – Present

### Ewha Womans University

M.S. in Statistics (Applicational Statistics). Advisor: Dongwan Shin

B.S. Major in Mathematics Education, Minor in Statistics; *Magna Cum Laude*

Seoul, Republic of Korea

Mar. 2018 – Feb. 2020

Mar. 2014 – Feb. 2018

### University of California, Davis

Exchange student in Mathematics

Davis, CA, USA

Sep. 2015 – Feb. 2016

## RESEARCH EXPERIENCE

---

### Adobe Research

Research Intern, Document Intelligence Lab

Mentor: Alexa F Siu, Tong Sun

San Jose, US

May 2024 ~ Sept. 2024

### Allen Institute for AI (AI2)

Research Scientist Intern, Semantic Scholar Team

Mentor: Pao Siangliulue, Joseph Chee Chang, Jonathan Bragg, Kyle Lo

Seattle, US

May - Oct. 2023

[C10, A2]

### LG AI Research

Research Scientist Intern, Advanced Machine Learning Lab

Mentor: Moontae Lee, Kyungjae Lee

Seoul, Republic of Korea

Nov. 2022 – Mar. 2023

[C6]

### KIXLAB, KAIST

Graduate Research Intern

Mentor: Juho Kim, Jean Y. Song

Daejeon, Republic of Korea

Mar. 2020 – Aug. 2020

### Electronics and Telecommunications Research Institute (ETRI)

Graduate Research Assistant, Data Sciences Group

Mentor: Yunbae Kim, Seungken Park

Daejeon, Republic of Korea

Mar. 2018 – Dec. 2019

[P1, P2, C1, C2]

## PUBLICATIONS

---

### Conference and Journal Papers

#### [C12] 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.*

- [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*

## Preprints

**[A1] 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  
*Under Review, 2024*

**Posters and Workshop Papers**

**[P5] 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*

**[P4] 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*

**[P3] 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*

**[P2] A Study on the Distribution Analysis of LTE Resource Block Usage from TSME Measurement Data**

**Yoonjoo Lee**, Yunbae Kim, Seungken Park  
*KICS, Jun. 2018*

**[P1] A Study on the Estimation of Probability Distribution of the Spectral Efficiency of LTE based on TSME Measurement Data**

Yunbae Kim, **Yoonjoo Lee**, Seungken Park  
*KICS, Jun. 2018*

**ACADEMIC SERVICES**

---

**Program Committee**

- CHI LBW 2023

**Workshop Organizing Committee**

- 2024 ACL Science Document Processing Workshop

**Reviewer**

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

**Student Volunteer**

*CHI 2022*

**TEACHING**

---

**Introduction to Algorithms**

*KAIST CS300, Instructor: Sunghye Choi*

Spring 2024

Last Updated: August 2, 2024

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

## **INVITED TALKS**

---

<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

## **HONORS, AWARDS, AND SCHOLARSHIPS**

---

<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>Admission Scholarship</b> <i>College of Natural Sciences, Ewha Womans University</i>	2018
<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

## **SERVICE AND LEADERSHIP**

---

<b>KAIST-Google ExploreCSR</b> <i>Student Organizer</i>	2022
<b>Programming Mentoring</b> <i>Leader of Student Organizer</i>	2016 – 2017