

YOONJOO LEE

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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 ~ Present

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]

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

[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: Proceedings of the 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: Proceedings of the 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: Proceedings of the 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: Proceedings of the 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: Proceedings of the 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: Proceedings of the 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: Proceedings of the 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: Proceedings of the 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: Proceedings of the 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

Priprints

[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: Sunghee Choi

Spring 2024

Introduction to Data Science

KAIST CS492, Instructor: Jaegil Lee

Spring 2022

Introduction to Social Computing

KAIST CS473, Instructor: Juho Kim

Fall 2020, Fall 2021

Time Series Analysis
Ewha Womans University, Instructor: Dongwan Shin

Spring 2019

Regression Analysis
Ewha Womans University, Instructor: Donghwan Lee

Fall 2018

INVITED TALKS

Invited Talk at HCI KOREA 2024: SIGCHI-Sponsored Top Conferences Session Jan. 2024
Title: DAPIE: Interactive Step-by-step Explanatory Dialogues to Answer Children's Why and How Questions

Technical Talk at NAVER AI LAB Nov. 2023
Title: Creating Interactive Dialogues to Answer Children's Why and How Questions

Invited Talk at UCSD Design Lab Oct. 2023
Title: Adapting Scaffolding to Support Knowledge Consumption through Interactive AI-Driven Systems

HONORS, AWARDS, AND SCHOLARSHIPS

Best Presentation Award from SIGCHI Invited Papers Session 2024
SIGCHI Korea Local Chapter

Research Assistant Scholarship 2019
College of Natural Sciences, Ewha Womans University

Admission Scholarship 2018
College of Natural Sciences, Ewha Womans University

Honors Scholarship 2014, 2015, 2016, 2017
College of Education, Ewha Womans University

Dean's List 2014, 2015, 2016, 2017
College of Education, Ewha Womans University

Ewha Womans University Alumnae Association Scholarship 2017
College of Education, Ewha Womans University

SERVICE AND LEADERSHIP

KAIST-Google ExploreCSR 2022
Student Organizer

Programming Mentoring 2016 – 2017
Leader of Student Organizer