

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 support people to learn from and make sense of dense information (e.g., content in lecture videos and scientific articles) by structuring the information in the context to create adaptive scaffoldings (e.g., QAs, dialogues, explanations) using AI models.

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

Graduated with Honors (*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

PUBLICATIONS

Conference and Journal Papers

[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 (to appear).

[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

Preprints

[A1] EvalLM: Interactive Evaluation of Large Language Model Prompts on User-Defined Criteria

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

Under Review, 2023

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

RESEARCH EXPERIENCE

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

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]

Undergraduate Research Intern, Data Sciences Group

Mentor: Yunbae Kim, Seungken Park

Jan. 2018 – Feb. 2018

TEACHING

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

ACADEMIC SERVICES

Program Committee

- CHI LBW 2023

Reviewer

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

Student Volunteer

CHI 2022

INVITED TALKS

Invited Talk at UCSD Design Lab <i>Title: Adapting Scaffolding to Support Knowledge Consumption through Interactive AI-Driven Systems</i>	Oct. 2023
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Invited Talk at University of Washington <i>Title: Adapting Scaffolding to Support Knowledge Consumption through Interactive AI-Driven Systems</i>	Oct. 2023
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HONORS, AWARDS, AND SCHOLARSHIPS

Research Assistant Scholarship <i>College of Natural Sciences, Ewha Womans University</i>	2019
Admission Scholarship <i>College of Natural Sciences, Ewha Womans University</i>	2018
Honors Scholarship <i>College of Education, Ewha Womans University</i>	2014, 2015, 2016, 2017
Dean's List <i>College of Education, Ewha Womans University</i>	2014, 2015, 2016, 2017
Ewha Womans University Alumnae Association Scholarship <i>College of Education, Ewha Womans University</i>	2017

SERVICE AND LEADERSHIP

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