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   **Daejeon, Republic of Korea**
    Ph.D. Candidate in Computer Science. Advisor: Juho Kim   Sep. 2020 – Present

Ewha Womans University   **Seoul, Republic of Korea**
    M.S. in Statistics (Applicational Statistics). Advisor: Dongwan Shin   Mar. 2018 – Feb. 2020
    B.S. Major in Mathematics Education, Minor in Statistics   Mar. 2014 – Feb. 2018
    Graduated with Honors (*Magna Cum Laude*)

University of California, Davis   **Davis, CA, USA**
    Exchange student in Mathematics   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) **Seattle, US**
Research Scientist Intern, Semantic Scholar Team May - Oct. 2023
Mentor: Pao Siangliulue, Joseph Chee Chang, Jonathan Bragg, Kyle Lo

LG AI Research **Seoul, Republic of Korea**
Research Scientist Intern, Advanced Machine Learning Lab Nov. 2022 – Mar. 2023
Mentor: Moontae Lee, Kyungjae Lee [C6]

KIXLAB, KAIST **Daejeon, Republic of Korea**
Graduate Research Intern Mar. 2020 – Aug. 2020
Mentor: Juho Kim, Jean Y. Song

Electronics and Telecommunications Research Institute (ETRI) **Daejeon, Republic of Korea**
Graduate Research Assistant, Data Sciences Group Mar. 2018 – Dec. 2019
Mentor: Yunbae Kim, Seungken Park [P1, P2, C1, C2]

Undergraduate Research Intern, Data Sciences Group Jan. 2018 – Feb. 2018
Mentor: Yunbae Kim, Seungken Park

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TEACHING

Introduction to Social Computing   Fall 2020, Fall 2021
KAIST CS473, Instructor: Juho Kim

Time Series Analysis   Spring 2019
Ewha Womans University, Instructor: Dongwan Shin

Regression Analysis   Fall 2018
Ewha Womans University, Instructor: Donghwan Lee

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   Oct. 2023
Title: Adapting Scaffolding to Support Knowledge Consumption through Interactive AI-Driven Systems

Invited Talk at University of Washington   Oct. 2023
Title: Adapting Scaffolding to Support Knowledge Consumption through Interactive AI-Driven Systems

HONORS, AWARDS, AND SCHOLARSHIPS

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

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