YOONJOO LEE

yoonjoo.lee@kaist.ac.kr | yoonjoolee.com

RESEARCH INTEREST

My research interest lies in the intersection of human-computer interaction (**HCI**) and natural language processing (**NLP**). I aim to support adaptive and personalized language design by structuring the information embedded in language in a way that aligns with human cognition, characteristics, and behavior. Through these structures, I seek to enable AI models to understand individual users in relation to language and to then generate language that is more suited to their states and needs.

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; *Magna Cum Laude* — Mar. 2014 – Feb. 2018

University of California, Davis **Davis, CA, USA**
Exchange student in Mathematics — Sep. 2015 – Feb. 2016

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 — [C10]

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]

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
Under review, 2024

[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
Accepted in CHI 2024

Last Updated: November 3, 2023

[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

Accepted in CHI 2024

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

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

Accepted in CHI 2024

[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

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
● ACL 2023
● CSCW 2023
● C&C 2022, 2024
● IEEE Transactions on Learning Technologies

Student Volunteer
CHI 2022

TEACHING

Introduction to Algorithms Spring 2024
KAIST CS300, Instructor: Sunghee Choi

Introduction to Data Science Spring 2022
KAIST CS492, Instructor: Jaegil Lee

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

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