TAE SOO KIM

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RESEARCH INTEREST

My work falls in the intersection of human-computer interaction (**HCI**) and artificial intelligence (**AI**). I design tools that enable users to **design**, **develop**, and **test** novel **applications powered by machine learning models.** Recently, I have been interested in investigating how to embed human and individual **values** into ML models.

EDUCATION

KAIST   **Mar. 2022 - Present**
Ph.D. in Computer Science   *Daejeon, South Korea*
Advisor: Juho Kim

KAIST   **Mar. 2020 - Feb. 2022**
M.S. in Computer Science   *Daejeon, South Korea*
Advisor: Juho Kim

KAIST   **Sep. 2015 - Feb. 2020**
B.S. in Computer Science (Magna Cum Laude)   *Daejeon, South Korea*

PUBLICATIONS

Conference and Journal Papers

[C11] 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. (to appear)

[C10] GenQuery: Supporting Expressive Visual Search with Generative Models
Kihoon Son, DaEun Choi, **Tae Soo Kim**, Young-Ho Kim, Juho Kim
CHI 2024: Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems. (to appear).

[C9] Demystifying Tacit Knowledge in Graphic Design: Characteristics, Instances, Approaches, and Guidelines
Kihoon Son, DaEun Choi, **Tae Soo Kim**, Juho Kim
CHI 2024: Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems. (to appear)

[C8] 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.

[C7] Papeos: Augmenting Research Papers with Talk Videos
Tae Soo Kim, Matt Latzke, Jonathan Bragg, Amy X. Zhang, Joseph Chee Chang
UIST 2023: Proceedings of the 2023 ACM Symposium on User Interface Software and Technology.

[C6] DAPIE: Interactive Step-by-Step Explanatory Dialogues to Answer Children's Why and How Questions
Yoonjoo Lee, **Tae Soo Kim**, Sungdong Kim, Yohan Yun, Juho Kim
CHI 2023: Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems.

[C5] Stylette: Styling the Web with Natural Language
Tae Soo Kim, DaEun Choi, Yoonseo Choi, Juho Kim
CHI 2022: Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems.
Honorable Mention Award

[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] Winder: Linking Speech and Visual Objects to Support Communication in Asynchronous Collaboration
Tae Soo Kim, Seungsu Kim, Yoonseo Choi, Juho Kim

CHI 2021: Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems.

[C2] Supporting Collaborative Sequencing for Small Groups through Visual Awareness
Tae Soo Kim, Nitesh Goyal, Jeongyeon Kim, Juho Kim, Sungsoo (Ray) Hong

Proceedings of the ACM on Human-Computer Interaction, Volume 5, Issue CSCW. April 2021. Article No.: 176, pp 1–29. Presented at CSCW 2021.

[C1] Design for Collaborative Information-Seeking: Understanding User Challenges and Deploying Collaborative Dynamic Queries
Sungsoo (Ray) Hong, Minhyang (Mia) Suh, **Tae Soo Kim**, Irina Smoke, Sangwha Sien, Janet Ng, Mark Zachry, Juho Kim

Proceedings of the ACM on Human-Computer Interaction, Volume 3, Issue CSCW. November 2019. Article No.: 106, pp 1–24. Presented at CSCW 2019.

Posters, Demos, and Workshop Papers

[D4] LMCanvas: Object-Oriented Interaction to Personalize Large Language Model-Powered Writing Environment
Tae Soo Kim, Arghya Sarkar, Yoonjoo Lee, Minsuk Chang, Juho Kim
CHI 2023 Workshop on Generative AI and HCI

[D3] 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

[D2] Improving Video Interfaces by Presenting Informational Units of Videos
Saelyne Yang, Sangkyung Kwak, **Tae Soo Kim**, Juho Kim
CHI 2022 Workshop on Computational Approaches for Understanding, Generating, and Adapting User Interfaces

[D1] Consensus Building in Collaborative Sequencing with Visual Awareness
Tae Soo Kim, Sungsoo (Ray) Hong, Nitesh Goyal, Jeongyeon Kim, Juho Kim
CHI 2020 Extended Abstract

RESEARCH EXPERIENCE

Allen Institute for AI   **Jul. 2022 - Oct. 2022**
Research Scientist Intern, Semantic Scholar   *Seattle, WA*
Mentors: Joseph Chee Chang, Amy X. Zhang, Jonathan Bragg   [C7]

KIXLAB, KAIST   **Dec. 2017 - Feb. 2020**
Undergraduate Research Intern   *Daejeon, South Korea*
Mentors: Juho Kim, Ray Hong   [C1, C2, D1]

HONORS AND AWARDS

Outstanding TA Award   **2023**
School of Computing, KAIST

AI2 Outstanding Intern of the Year Award   **2022**
Allen Institute for AI

Honorable Mention Award   **2022**
ACM CHI 2022

Outstanding M.S. Thesis Award   **2022**
School of Computing, KAIST

Special Recognition for Outstanding Reviews   **2021, 2022, 2023**
CHI 2022, UIST 2022, CSCW 2023, CHI 2023, CHI 2024

Dean's List   **Spring 2018**
School of Computing, KAIST

TEACHING

Human-AI Interaction   **Fall 2023**
KAIST CS496G Teaching Assistant, Instructor: Juho Kim

Data Structure   **Spring 2023**
KAIST CS206 Teaching Assistant, Instructor: Eun Young Moon

Design and Analysis of Algorithm   **Spring 2022**
KAIST CS500 Teaching Assistant, Instructor: Sunghee Choi

Introduction to Human-Computer Interaction   **Spring 2021**
KAIST CS374 Teaching Assistant, Instructor: Juho Kim

Introduction to Social Computing   **Fall 2020**
KAIST CS473 Teaching Assistant, Instructor: Juho Kim

ACADEMIC SERVICES

Program Committee
CHI LBW 2023, 2024

Reviewer
CHI 2024, 2023, 2022
UIST 2023, 2022
CSCW 2023, 2020
DIS 2023
CHI LBW 2021

Student Volunteer
UIST 2023, 2021
CHI 2022

INVITED TALKS

Guest Lecture at NYU Abu Dhabi CDAD-UH 1044Q Human-Centered Data Science   **Dec. 2023**
Title: *"Interactively Evaluating LLMs on Specific, Subjective Criteria"*

NAVER Tech Talk   **Nov. 2023**
Talk on the *"Cells, Generators, and Lenses"* and *"EvalLM"* papers.

Guest Lecture at PSU IST 597-001 Intelligent and Interactive Writing Assistants   **Sep. 2023**
Title: *"Designing for Object-Oriented Interaction in Large Language Model-Powered Writing Interfaces"*

Invited Talk at Manila ACM SIGCHI Chapter   **Jun. 2022**
Title: *"Mapping Multiple Modalities to Empower Novice Designers"*