

Research Interest

I am interested in designing large language model (LLM) applications for education, to create personalized learning environments. My current research focuses on generating English course content using LLMs, informed by interaction data between ChatGPT and EFL students. I plan to expand my research to explore innovative teaching methods that redefine the role of teachers in AI-enhanced classrooms. My ultimate goal is to integrate diverse AI technologies to optimize educational environments for all stakeholders.

Education

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| 08/2022-08/2024 | Korea Advanced Institute of Science and Technology , Daejeon, South Korea
M.S. in Industrial Design (Advisor: Tak Yeon Lee)
- Thesis: Designing an Educational Framework for Utilizing Large Language Models:
Focusing on EFL Classroom Use Cases |
| 02/2017-08/2022 | Korea Advanced Institute of Science and Technology , Daejeon, South Korea
B.S. in Electrical Engineering, minoring in Industrial Design |

Publications

WORKSHOP PAPERS

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| w3 | <u>Minsun Kim</u> , Seon Gyeom Kim, Suyoun Lee, Yoosang Yoon, Junho Myung, Haneul Yoo, Hyungseung Lim, Jieun Han, Yoonsu Kim, So-Yeon Ahn, Juho Kim, Alice Oh, Hwajung Hong, Tak Yeon Lee*
LLM-Driven Learning Analytics Dashboard for Teachers in EFL Writing Education
EMNLP 2024 Workshop ‘CustomNLP4U’
- Demonstrated a specific methodology for how a human-centered approach can enhance the applicability of LLM in educational settings.
- Developed dashboard application that leverages NLP models. |
| w2 | Jieun Han, Haneul Yoo, Junho Myung, <u>Minsun Kim</u> , Hyunseung Lim, Yoonsu Kim, Tak Yeon Lee, Hwajung Hong, Juho Kim, So-Yeon Ahn*, Alice Oh*
LLM-as-a-tutor in EFL Writing Education: Focusing on Evaluation of Student-LLM Interaction
EMNLP 2024 Workshop ‘CustomNLP4U’
- Shaped evaluation criteria of LLM-student interaction. |
| w1 | Jieun Han, Haneul Yoo, Junho Myung, <u>Minsun Kim</u> , Tak Yeon Lee, So-Yeon Ahn*, Alice Oh*
Exploring Student-ChatGPT Dialogue in EFL Writing Education
NeurIPS 2023 Workshop ‘Generative AI for Education(GAIED)’
- Suggested to construct prompt taxonomy via qualitative coding in the field of natural language processing.
- Served as a data analyst to identify the intentions of 2000+ prompts from EFL students. |

- c1 Jieun Han, Haneul Yoo, Yoonsu Kim, Junho Myung, **Minsun Kim**, Hyunseung Lim, Juho Kim, Tak Yeon Lee, Hwajung Hong, So-Yeon Ahn*, Alice Oh*
RECIPE: How to Integrate ChatGPT into EFL(English as a Foreign Language) Writing Education
 In Proceedings of the Tenth ACM Conference on Learning @ Scale 2023
 - Conducted a focus group interview with six students to identify the system needs when using ChatGPT as an English essay writing tool.
 - Supervised 120+ students enrolled in EFL courses and addressed system-related inquiries.

PREPRINTS & PUBLICATIONS IN PROGRESS

- p2 **Minsun Kim**, Seon Gyeom Kim, Suyoun Lee, Yoosang Yoon, Junho Myung, Haneul Yoo, Hyungseung Lim, Jieun Han, Yoonsu Kim, So-Yeon Ahn, Juho Kim, Alice Oh, Hwajung Hong, Tak Yeon Lee*
LLM-Driven Learning Analytics Dashboard for Teachers in EFL Writing Education
 Preprints Under Review.
 - Conducted survey, interviews, and observation with six EFL instructors about ChatGPT-student interaction
 - Developed dashboard prototypes with React, Plotly, and OpenAI API
 - Investigated design implications of prompt monitoring dashboard through thematic analysis
- p1 Jieun Han, Haneul Yoo, Junho Myung, **Minsun Kim**, Hyunseung Lim, Yoonsu Kim, Tak Yeon Lee, Hwajung Hong, Juho Kim, So-Yeon Ahn*, Alice Oh*
FABRIC: Automated Scoring and Feedback Generation for Essays
 Preprints Under Review.
 - Conducted a focus group interview with six students.
 - Administered written interviews with three EFL instructors to identify feedback types and ascertain their needs.
 - Spearheaded the identification of automated essay scoring needs through interviews conducted using the RECIPE system.

* denotes corresponding authors.

Skills & Techniques

Languages	English(Fluent), Korean(Native)
User Research	Focus group and individual interviews, Ethnography, Diary study, Participatory Design, Design Workshop, Survey
Qualitative Analysis	Atlas.ti
Quantitative Analysis	SPSS, Python(Plotly, pandas)
Web Development	Javascript, React JS, MongoDB, Node.js, Figma
Others	Python, C, C++

Teaching

2023	Teaching assistant, Special Topics in Humanities <AI-Generated Writing and Literature>
2023	Teaching assistant, System Design

Academic Services

2024	EMNLP CustomNLP4U Workshop Reviewer
2024	CHI LBW Reviewer

Experience

11/2024-01/2025	NAVER Corp. Sungnam, South Korea Whale Business Team Intern
01/2022-06/2022	Repla Inc. Suwon, South Korea Researcher <ul style="list-style-type: none">- Designed UI/UX of plastic transaction website and GUI of plastic sorting machine.- Patent: Dongeun Suh, Minsun Kim, Hyunjin Lee, Laeeun Kim DEVICE FOR DETERMINING TYPE OF MEASUREMENT OBJECT (KR-Registration No. 10-2563-2930000)
07/2021-08/2021	Repla Inc. Suwon, South Korea Undergraduate Engineering Internship

Honors and Awards

2023	iF Design Award, TRUXI - The New Self-Driving Infotainment System
2022-2024	KAIST Graduate Scholarship
2017-2021	Department Honors Scholarship, Undergraduate Financial Aid