JISU KIM

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EDUCATION

Georgia Institute of Technology (GT)

Atlanta, GA

Master of Science in Human-Computer Interaction, Interactive Computing

July 2025

Advisor: Richmond Wong

Undergraduate Exchange Program in Computer Science

Fall 2022

Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, Korea

Bachelor of Science in Computer Science, Minor in Artificial Intelligence (AI)

August 2023

Double Major in Business and Technology Management

Korea National University of Arts

Seoul, Korea

Undergraduate Exchange Program in School of Drama

Summer 2022

EMPLOYMENT

GT Design Intelligence Lab

Atlanta, GA

Graduate Research Assistant; Advisor: Ashok Goel

Jan 2025 - Jul 2025

SAMI: A Large Language Model (LLM)-based AI social agent for online learning

- Implemented a metacognitive self-revision architecture using LLMs and LangChain to improve transparency and interpretability [4].
- Designed a learnersourcing system using the AI social agent to enhance student engagement and motivation [2].

Tesla Inc. Fremont, CA

Data Science Intern

Applied machine learning (ML) for customer retention and lifecycle modeling • Engineered a customer churn prediction model on multi-terabyte datasets using Pandas, XGBoost, and SHAP for retention strategies.

- Developed a SQL-based customer lifecycle tracking pipeline with dashboards, reducing upstream data inconsistencies by 93.9%.
- Collaborated cross-functionally and presented biweekly to stakeholders across finance, service, and support teams for business impact.

KAIST Interaction Lab

Undergraduate Research Intern; Advisor: Juho Kim

Daejeon, Korea Jan 2022 - Jul 2023

Aug 2024 - Jan 2025

StupidTutor: Understanding user comprehension and trust in erroneous and inconsistent LLM outputs [1]

- Designed passages and comprehension questions based on inconsistency types identified in a preliminary study.
- Developed backend for user study deployment using SQLite and Flask, collaborating with frontend developers.
- Led quantitative analysis of 252 responses using Python, R, and Pandas, yielding design implications for promoting critical engagement.

Grinder: Human-AI collaborative object detection framework for video commerce

- Designed a human-in-the-loop object detection framework with iterative fine-tuning based on human-labeled data.
- Conducted 20+ remote usability tests combining qualitative and quantitative methods to evaluate system usability and user experience.

KAIST Experience Design Lab

ML Engineer Intern

Daejeon, Korea

Undergraduate Research Intern; Advisor: Yiyun Kang

Mar 2023 - Jun 2023

Passage of Water: Raising awareness of freshwater scarcity through interactive media

- Translated NASA JPL surface water and ocean topography data into an interactive online game to promote environmental awareness.
- Designed the narrative structure and user engagement strategy for an interactive game featured on Google Arts & Culture.

Samsung SDS Co., Ltd. (Samsung Data System)

Seoul, Korea

Real-time background segmentation model development for video conferencing

Mar 2021 - Aug 2021

- Developed a PyTorch model achieving 1.5× speed, 34% higher accuracy, and 14% fewer parameters than the baseline.
- Applied transfer learning and knowledge distillation on unlabeled datasets to enhance performance and enable iterative improvement.
- Optimized and deployed the PyTorch model using ONNX for real-time inference in the Samsung Knox Meeting video pipeline.

Samsung Research Seoul, Korea

Data Science Intern Jul 2020 - Aug 2020

LTE eNB KPI analysis for performance optimization

- Analyzed LTE eNB datasets using Python and Pandas to identify key statistical patterns and correlations supporting forecasting.
- Collaborated with ML engineers to refine KPI modeling and contribute to performance optimization efforts.

Publications

Conferences and Journal Papers

[1] One vs. Many: Comprehending Accurate Information from Multiple Erroneous and Inconsistent AI Generations [DOI]

Yoonjoo Lee, Kihoon Son, Tae Soo Kim, <u>Jisu Kim</u>, John Joon Young Chung, Eytan Adar, Juho Kim

ACM FAccT 2024: ACM Conference on Fairness, Accountability, and Transparency.

Posters, Demos, and Workshop Papers

[2] Engaging Learnersourcing with an AI Social Agent in Online Learning

[PDF]

Jisu Kim, Ashok Goel

ACM L@S 2024 Workshop on Learnersourcing: Student-generated Content @ Scale.

Working Papers

[3] Sound Clouds-Exploring ambient intelligence in public spaces to elicit deep human experience of awe, wonder, and beauty

Chengzhi Zhang, Dashiel Carrera*, Daksh Kapoor*, Jasmine Kaur*, <u>Jisu Kim</u>*, Brian Magerko *Submitted to NeurIPS 2025 Creative AI Track*.

[4] Computing in the Sound Clouds: Inflatable Interfaces for Ambient Awe

Jasmine Kaur, Angelina Thais Alvarenga Medina, Daksh Kapoor, Chengzhi Zhang, <u>Jisu Kim</u>, Hyunkyung Shin, Dashiel Carrera, Brian Magerko

Submitted to TEI 2026 Pictorial.

[5] A Metacognitive Architecture for the AI Social Agent's Theory of Mind Self-Revision

Jisu Kim, Mahimul Islam, Ashok Goel

In preparation for submission to Innovative Applications of Artificial Intelligence 2025.

[6] Of the Audience, By the Audience, For the Audience: Designing AI Support for Audience-Centered Slide Reflection

Jisu Kim*, Debbie Hsu*, Vijay Farmah, Christopher J. MacLellan, Richmond Wong

Aiming for ACM CHI 2026, directional revision from initial submission to ACM CHI 2025 LBW.

Awards and Honors

TWARDS AND HONORS	
GT Graduate Research Assistant Scholarship – Full tuition for 1 year	2025
Top 10, KAIST Outstanding Graduate Leadership Award	2024
GT International House I-Spirit Award	2022
Mirae Asset Park Hyeun Joo Foundation Overseas Exchange Scholarship – 7M KRW	2022
Korea National Scholarship – Full tuition for 5 years	2018 - 2022
Top 3%, KAIST Outstanding Leadership Award	2020
2nd Place, World Friends Korea ICT Volunteers Project Award – 2M KRW	2019
2nd Place, KAIST Athletics Doubles Badminton Award	2018
1st Place, KAIST CEE Undergraduate Research Award – 1M KRW	2018
Leadership and Activities	
Committee Member – GT International House	2022
Student President - KAIST School of Computing; Representative of over 900 students.	2019 - 2020
<i>Mentor</i> – Tanzania ICT Volunteers	2019
Team Leader - KAIST Badminton Club	2019
Vice Student President – KAIST Freshman Learning Committee	2018

TALKS

AI-ALOE External Advisory Board Meeting

Atlanta, GA

A Theory of Self-explanation in AI Agents

May 2025

TEACHING

Samsung SDS Co., Ltd.

Seoul, Korea

Instructor and Editor | Blog (Korean)

Mar 2021 – Aug 2021

Hosted a monthly 'Introduction to AI for Novices' seminar and authored 'Image Classification', a top 3 Google search result in Korean.

NAVER Connect Foundation.

Seoul, Korea

Instructor

Jul 2021 - Aug 2021

Taught 25 college-level and above students in the Python Boost course.

LG Electronics Inc.

Daejeon, Korea

Instructor Mar 2019 – Dec 2019

Organized Arduino, CAD, and 3D printer classes for 48 students from multicultural families.

MENTORING

Seungsu Kim

Gyeonggi Science High School

Jan 2024 – Present

REFERENCES

Richmond Wong

Assistant Professor in Digital Media, GT rwong34@gatech.edu

Christopher J. MacLellan

Assistant Professor in School of Interactive Computing, GT cmaclell@gatech.edu

Ashok Goel

Professor in School of Interactive Computing, GT ashok.goel@cc.gatech.edu

Juho Kim

Associate Professor in School of Computing, KAIST juhokim@kaist.ac.kr