# JISU KIM

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#### **EDUCATION**

Georgia Institute of Technology (GT)

Atlanta, GA

Master of Science in Human-Computer Interaction (Interactive Computing), GPA: 4.0/4.0

August 2025

Advisor: Richmond Wong

Undergraduate Exchange Program in Computer Science, GPA: 4.0/4.0

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 – Aug 2025

Aug 2024 - Jan 2025

Developing metacognitive AI architectures for robust and trustworthy large language model (LLM) social agents

- Engineered a metacognitive self-revision architecture for an LLM-based agent to adapt to user needs and maintain trust [2].
- Designed a learnersourcing system using the AI social agent to enhance student engagement and motivation [5].

Tesla Inc. Fremont, CA

Data Science Intern

Applied machine learning (ML) for customer retention and lifecycle modeling

- Engineered a customer churn prediction model using XGBoost and SHAP on multi-terabyte datasets, providing retention strategies.
- Developed a SQL-based customer lifecycle tracking pipeline with dashboards, reducing upstream data inconsistencies by 93.9%.
- Demonstrated strong collaboration and communication skills by presenting biweekly to stakeholders across finance, service, support.

**KAIST Interaction Lab** Daejeon, Korea

Undergraduate Research Intern; Advisor: Juho Kim

Jan 2022 - Jul 2023

Investigating user trust and comprehension of inconsistent LLM generations to encourage critical LLM usage [6]

- Designed user study (N=252) that empirically showed LLM inconsistency lowered perceived AI capacity but increased comprehension.
- Led quantitative analysis with Python and R to derive design implications for mitigating AI overreliance and calibrating human trust.
- Developed the backend infrastructure for user study deployment using SQLite and Flask, collaborating with frontend developers.

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

Data Science 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 and optimized 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 model using ONNX for integration into a production application for real-time inference in a video pipeline.

**Samsung Research** Seoul, Korea

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**

[1] "If the AI Tool Were an A\*\*hole": Strategically Leveraging Critical Feedback and Prompting Reflection for Professional Creative Workflows

**Jisu Kim\***, Debbie Hsu\*, Vijay Farmah, Christopher J. MacLellan, Richmond Wong *ACM IUI 2026 (under review)*.

- [2] A Metacognitive Architecture for Self-Revision in AI Social Agents
  - Jisu Kim, Mahimul Islam, Ashok Goel
  - AAAI 2026 Innovative Applications of AI (accepted).
- [3] "Jaw Dropping" Sound Clouds: Exploring the Role of Awe in Ambient Computational Systems through Installation Art Dashiel Carrera, Jasmine Kaur, Daksh Kapoor, Chengzhi Zhang, Jisu Kim, Brian Magerko ACM CHI 2026 (under review).
- [4] 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\*, **Jisu Kim\***, Brian Magerko *NeurIPS 2025 Creative AI Track (accepted)*.

- [5] Engaging Learnersourcing with an AI Social Agent in Online Learning
  - Jisu Kim, Ashok Goel
  - ACM L@S 2024 Workshop on Learnersourcing: Student-generated Content @ Scale (accepted).
- [6] 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 ACM FAccT 2024 (accepted).

# AWARDS 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

# PROFESSIONAL SERVICES

**Student Volunteer**, Advances in Cognitive Systems 2025 **Reviewer**, AAAI 2026 Innovative Applications of AI

### LEADERSHIP AND ACTIVITIES

Committee Member, GT International House	2022
Student President, KAIST School of Computing; Representative of over 900 students.	2019 - 2020
Mentor, 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.

# 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