# JISU KIM

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#### **EDUCATION**

#### Georgia Institute of Technology (GT)

Atlanta, GA

Master of Science in Human-Computer Interaction – Interactive Computing

Expected: May 2025

Master's project: Contextual Questioner, Generate Contextual Questions with AI in Google Slides

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

Double Major in Business and Technology Management

August 2023

## **Korea National University of Arts**

Seoul, Korea

Undergraduate Exchange Program in School of Drama

Summer 2022

#### RESEARCH EXPERIENCE

## **GT Design Intelligence Lab**

Atlanta, GA

Graduate Research Assistant; Advisor: Ashok Goel

Jan. 2025 - Present

SAMI: LLM-based AI-Mediated Social Interaction in Online Learning Environments

- o Implemented a self-explanation and self-correction feature in an AI social agent using the Task-Method-Knowledge model.
- o [w.1] Designed a learnersourcing system using an AI social agent to enhance intrinsic and extrinsic motivation.

**KAIST Interaction Lab** 

Daejeon, Korea

Research Intern; Advisor: Juho Kim

Jan. 2022 – Aug. 2023

- [c.1] StupidTutor: Understanding Users' Comprehension Ability from Inconsistent Large Language Models (LLMs)
- o Designed a user study of 100+ question-answering datasets and used various explanation styles to show AI functionality.
- o Developed the back-end for a user study interface using SQLite and Flask, collaborating with a front-end developer.
- Spearheaded data analysis and visualization of a user study with 250+ participants using Pandas with Python and R.

Grinder: Designing Object Detection Based on Human-AI Collaboration in Video Commerce

- o Designed object detection framework with a human-in-the-loop approach, fine-tuning based on human-labeled data.
- o Led 20+ remote unmoderated usability tests encompassing both qualitative studies and quantitative benchmark studies.

## **KAIST Experience Design Lab**

Daejeon, Korea

Research Intern; Advisor: Yiyun Kang

Mar. 2023 – Jul. 2023

Passage of Water: Raising awareness about freshwater scarcity through interactive online and offline media

- o Translated surface water and ocean topography data from NASA JPL into a user-centric, interactive online game design.
- o Contributed to the preliminary design of the online game's storyline, with the final version exhibited on Google Arts & Culture.

#### **PROJECTS**

#### SoundClouds, Participatory Music Generation Exhibition

Atlanta, GA

Lead Developer; Advisor: Brian Magerko | Website

Jan. 2025 - Present

A participatory music exhibition based on real-time soundscape generation through user interactions with inflatables.

- Led the development of an object detection model using YOLO for tracking user movements, enabling dynamic music generation.
- o Collaborated cross-functionally with a music technologist for sound synthesis and a visual artist for spatial design.
- o Explored how curiosity and awe-driven experiences influence users' perceptions and interactions with ambient intelligence in art.

### Contextual Questioner: Generate Contextual Questions with AI in Google Slides

Atlanta, GA

Project Leader; Advisor: Richmond Wong | Talk

Apr. 2024 - Present

Led a master's project on understanding AI use and non-use in slide creation and designed an AI agent for Google Slides.

# VAL, Interactive Hierarchy Task Network (HTN) System for Task Planning

Atlanta, GA

Research Assistant; Advisor: Christopher MacLellan | GitHub

Jan. 2025 - Present

Developed an interactive graphical user interface for HTN to enhance user control over task planning using React Flow.

#### **FORECST, Online Hackathon Website**

Daejeon, Korea

Project Leader; Advisor: Juho Kim | GitHub | Demo

Aug. 2021 - Dec. 2021

Directed a team of 4 in the end-to-end website development for an online hackathon using React.js and Firebase during COVID.

Tesla Inc. Fremont, CA

Data Science Intern Aug. 2024 – Jan. 2025

Data Analysis and Predictive Modeling on Customer and Vehicle Churn

- o Created and deployed a data pipeline for tracking customer ownership lifecycle, reducing erroneous data by 93.9%.
- o Built a customer churn prediction model with PR-AUC 0.704 using Pandas and R, handling multiple large-scale datasets.
- o Collaborated and presented to stakeholders biweekly, including finance, service, and customer support teams

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

Seoul, Korea

Artificial Intelligence Intern

Mar. 2021 - Aug. 2021

Development of a Real-time Background Segmentation Model for the Video Conference Platform

- o Developed a PyTorch model achieving 1.5x speed, 34% higher accuracy, and 14% fewer parameters than the base model.
- o Leveraged unlabeled dataset training by knowledge distillation, improving accuracy by transfer learning and fine-tuning.
- o Integrated the developed model into Knox Meeting, a Samsung video conferencing platform.

#### Samsung Electronics Co., Ltd.

Seoul, Korea

Data Science Intern

Jul. 2020 - Aug. 2020

Data Analysis of Key Performance Indicators (KPIs) from LTE Evolved NodeBs (eNBs) Statistical Data for KPI Modeling

- Extracted KPIs from LTE eNBs data and performed correlation analysis using Pandas with Python.
- o Collaborated with machine learning developers to optimize LTE eNB KPI modeling based on identified correlations.

#### **PUBLICATIONS**

#### **Conferences and Journal Papers**

#### [c.1] 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

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

## Posters, Demos, and Workshop Papers

#### [w.1] Engaging Learnersourcing with an AI Social Agent in Online Learning

Jisu Kim, Ashok Goel

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

#### SCHOLARSHIPS AND AWARDS

GT Graduate Research Assistant Scholarship	2025
KAIST Outstanding Graduate Leadership Award	2024
GT International House I-Spirit Award	2022
Mirae Asset Park Hyeun Joo Foundation Overseas Exchange Scholarship	2022
Korea National Scholarship	2018 - 2022
KAIST Outstanding Leadership Award	2020
2nd Place, World Friends Korea ICT Volunteers Project Award	2019
2nd Place, KAIST Athletics Doubles Badminton Award	2018
1st Place, KAIST Civil and Environmental Engineering Undergraduate Research Award	2018
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#### Leadership and Activities

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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

## TEACHING EXPERIENCE

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

Seoul, Korea

Speaker and Blog Editor | Blog (Korean)

Mar. 2021 - Aug. 2021

Hosted a monthly team seminar titled 'Introduction to AI for Novices' with content published on a Medium blog. Authored a highly popular blog post on 'Image Classification', which ranks in the top 3 Google search results in Korean.

## **NAVER Connect Foundation.**

Seoul, Korea

Programming Mentor

Jul. 2021 - Aug. 2021

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

LG Electronics Inc.

Daejeon, Korea

Education Mentor Mar. 2019 – Dec. 2019

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