

# Jaeyoon Song

✉ jaeyoons@mit.edu • 🌐 jaeyoon.io • 🐙 github.com/jyoonsong

## INTERESTS

Large Language Models, Human-Centered AI, Multi-Agent Systems.

## EDUCATION

**Massachusetts Institute of Technology**, Cambridge, MA

Feb 2021 – May 2026

- Ph.D., Information Technology
- Advisor: Prof. Thomas W. Malone
- GPA: 5.0/5.0

**Seoul National University**, Seoul, South Korea

Mar 2016 – Feb 2021

- B.B.A., Business Administration
- Minor in Computer Science and Engineering
- Graduated *Summa Cum Laude*

## SKILLS

- **Python**, pandas, scikit-learn, AutoGen, Retrieval-Augmented Generation (RAG)
- **Experiment Design & Statistical Methods**: Clustering, Topic Modeling, A/B Testing
- **Web Technologies**: JavaScript (React, D3, React Native, Express), MongoDB, Ruby on Rails

## RESEARCH

**Microsoft Research**, New York, NY

2025

## EXPERIENCE

- Research Intern
- Developed a backtestable evaluation framework for assessing LLM forecasting accuracy while eliminating temporal contamination.
- Implemented an automated retrieval-augmented generation (RAG) pipeline that synthesized web search data into structured summaries.
- Advisor: Dr. Dan Goldstein

**Bosch Research**, Sunnyvale, CA

2024

- Research Intern
- Designed a visual analytics system for interpreting dynamic factors in driving videos.
- Implemented Meta SAM 2 and LLM-driven inference pipelines on driving video datasets to automatically generate dynamic factor masks.
- Advisor: Dr. Jiajing Guo

**Adobe Research**, San Jose, CA

2023

- Research Intern

**KAIST Interaction Lab**, KAIST

2018 – 2019

- Undergraduate Research Intern

**Human-Computer Interaction Lab**, Seoul National University

2018

- Undergraduate Research Intern

## PUBLICATIONS

### JOURNAL & CONFERENCE PAPERS

- [1] J. Song, Z. Ashktorab, T. Malone, **Togedule: Adaptive Representation of Group Availability Using Large Language Models for Scheduling Meetings**, *ACM SIGCHI Conference on Computer-Supported Cooperative Work Social Computing (CSCW 2025)*.
- [2] J. Song, Z. Ashktorab, Q. Pan, C. Dugan, W. Geyer, T. Malone, **Interaction Configurations and Prompt Guidance in Conversational AI for Question Answering in Human-AI Teams**, *ACM SIGCHI Conference on Computer-Supported Cooperative Work Social Computing (CSCW 2025)*.
- [3] S. Park, J. Song, D. Karger, T. Malone, **Who2chat: A Social Networking System for Academic Researchers in Virtual Social Hours Enabling Coordinating, Overcoming Barriers and Social Signaling**, *ACM SIGCHI Conference on Computer-Supported Cooperative Work Social Computing (CSCW 2024)*.
- [4] J. Song, C. Riedl, T. Malone, **Online Mingling: Supporting Ad Hoc, Private Conversations at Virtual Conferences**, *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2021)*.
- [5] S. Lee, J. Song, S. Park, J. Kim, J. Kim, E. Ko, **SolutionChat: Real-time Moderator Support for Chat-based Structured Discussion**, *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2020)*.
- [6] D. Shin, J. Song, S. Song, J. Park, J. Lee, S. Jun, **TalkingBoogie: Collaborative Mobile AAC System for Non-verbal Children with Developmental Disabilities and Their Caregivers**, *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2020)*.
- [7] J. Song and C. Kim, **What Is Needed for the Sustainable Success of Open Source Software Projects: Efficiency Analysis of Commit Production Process via Git**, *Sustainability*, vol. 10, no. 9, (2018): 3001.

### MANUSCRIPTS UNDER REVIEW

- [8] J. Song\*, B. Luttges\*, M. Alsobay, D. Goldstein, **Forecasting with LLMs: A Dataset for Rapid Backtesting Without Temporal Contamination**. *Under Review*.
- [9] J. Song, A. Vossoughi\*, H. Zhang\*, D. Lee, **The Generative AI Divide: A Descriptive Analysis of Heterogeneous Adaptation Among Knowledge Contributors**. *Under Revision*.
- [10] J. Song, S. Park, T. Malone, **Designing for Effortful AI: The Efficiency-Learning Dilemma in AI-Assisted Note-Taking**. *Under Review*.

### WORKING PAPERS

- [11] A. Campero\*, M. Vaccaro\*, J. Song, H. Wen, A. Almaatouq, T. Malone, **A Test for Evaluating Performance in Human-AI Systems**, *MIT Working Paper*, 2022.
- [12] J. Song, J. Heyman, M. Vaccaro, A. Cai, A. Almaatouq, T. Malone, **How Human-AI Synergy Changes as AI Technology Advances: A Case of Writing Short Stories**. *Work in Progress*.

- [13] M. Vaccaro, J. Song, A. Almaatouq, M. Bakker, **The Case for Harmful Capability Uplift: Why AI Safety Evaluation Must Focus on Human-AI Systems.** *Work In Progress.*

#### POSTERS

- [14] J. Song\*, K. Choe\*, J. Jo, and J. Seo, **SoundGlance: Briefing the Glanceable Cues of Web Pages for Screen Reader Users,** *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2019 Late Breaking Work).*

#### AWARDS & HONORS

- Next Jump Innovation Prize,** MIT Web Lab Competition 2022
- Built a 3rd place web service among 300+ MIT students; awarded \$3,500
- Special Recognition for Outstanding Reviews,** ACM CHI 2023 2022
- Recognized for outstanding paper reviews
- Gary Marsden Travel Award,** ACM SIGCHI 2022
- Travel grant for attending UIST 2022
- Graduate School Fellowship,** MIT Sloan School of Management 2021 – Present
- Received full departmental funding for graduate studies
- Honorable Mention Award,** ACM SIGCHI 2020
- Recognized among the top 5% of paper submissions
- Yangyoung Foundation Scholarship,** South Korea 2018 – 2020
- Awarded a merit-based scholarship during undergraduate studies
- International Samsung AI Challenge, Final Round Award,** Samsung Research 2018
- Developed a personalized restaurant recommender system using collaborative filtering based on restaurant ratings and review text data
- Samsung Convergence Software Course Scholarship,** South Korea 2018
- Earned a scholarship for successfully completing the Samsung Convergence Software Course
- Merit-based Scholarship,** Seoul National University 2016 – 2017
- Received a merit-based scholarship during undergraduate studies.

#### DOCTORAL COURSEWORK

- Applied Machine Learning (6.862), MIT
- Quantitative Methods for Natural Language Processing (6.8610), MIT
- LLM Agents and Multi-Agent Systems (QST 911), Boston University
- Advances in Computer Vision (6.869), MIT
- Quantitative Research Methods (17.800), MIT
- Interactive Data Visualization (6.C85), MIT
- Research Seminar in IT and Organizations: Economic Perspectives (15.575), MIT

ACADEMIC SERVICE	<b>Reviewer</b>	
	<ul style="list-style-type: none"> <li>▪ ACM CSCW 2022, 2023, 2025</li> <li>▪ ACM CHI 2023, 2024</li> </ul>	
MENTORSHIP	▪ <b>Riki Choi</b> , Undergraduate Student at Boston University	2025 – Present
	▪ <b>Thomas Shin</b> , Undergraduate Student at Boston University	2025 – Present
	▪ <b>Arman Vossoughi</b> , Undergraduate Student at Boston University	2024 – Present
	▪ <b>Hongzun Zhang</b> , Master’s Student at Boston University	2024 – Present
	▪ <b>Caitlin Ogoe</b> , Undergraduate Student at MIT	2022 – 2024
	▪ <b>Alice Cai</b> , Undergraduate Student at Harvard University	2021 – 2023
	▪ <b>Eve Silfanus</b> , Undergraduate Student at Wellesley College	2021 – 2022
	▪ <b>Michelle Minsol Kim</b> , Undergraduate Student at Wellesley College	2021 – 2022
TEACHING EXPERIENCE	<b>Graduate Teaching Assistant</b> , MIT Sloan School of Management	2026 (Expected)
	▪ Course: 15.S04 - Generative AI Lab: Action Learning Seminar on Generative AI, Its Applications, and the Digital Economy	
	<b>Graduate Teaching Assistant</b> , MIT Sloan School of Management	Sep 2025 – Dec 2025
	▪ Course: 15.572 - Analytics Lab (Action Learning Seminar on Analytics, Machine Learning, and the Digital Economy)	
	▪ Led recitations on large language models. Assisted student teams in applying analytics to solve challenges for partner companies.	
	<b>Guest Lecture</b> , Seoul Institute of the Arts	Nov 2023
	▪ Delivered a virtual seminar as an invited speaker via Zoom.	
	▪ Developed a design thinking workshop centered on conceptualizing a group scheduling tool.	
OTHER EXPERIENCE	<b>Graduate Teaching Assistant</b> , MIT CSAIL	Sep 2022 – Dec 2022
	▪ Course: 6.1040 - Software Studio	
	▪ Led recitations on web technologies (e.g., Vue.js, Node.js, MongoDB, and Socket.IO)	
	▪ Average Evaluation Rating: 6.0/7.0	
	▪ <b>Software Engineer</b> , BigPearl	2017
	▪ <b>Featured Chrome Extension on Chrome Web Store</b> – Reached over 2,000 users	2022
	▪ <b>A 3D Rotating Cube</b> , <a href="https://jaeyoon.io/cube">https://jaeyoon.io/cube</a> – Developed an interactive 3D visualization	2017