

Jaeyoon Song

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INTERESTS

Large Language Models, Human-Centered AI, Information Retrieval.

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:** PyTorch, LangGraph, AutoGen, vLLM, pandas, scikit-learn
- **Large Language Models:** Fine-tuning, Retrieval-Augmented Generation (RAG)
- **Experiment Design & Statistical Methods:** Clustering, Topic Modeling, A/B Testing
- **Web Development:** 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 and implemented a visual analytics system for interpreting dynamic factors in driving videos.
- 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	Reviewer	
	▪ ACM CSCW	2022, 2023, 2025
	▪ ACM CHI	2023, 2024
MENTORSHIP	▪ Riki Choi , Undergraduate Student at Boston University ▪ Thomas Shin , Undergraduate Student at Boston University ▪ Arman Vossoughi , Undergraduate Student at Boston University ▪ Hongzun Zhang , Master's Student at Boston University ▪ Caitlin Ogoe , Undergraduate Student at MIT ▪ Alice Cai , Undergraduate Student at Harvard University ▪ Eve Silfanus , Undergraduate Student at Wellesley College ▪ Michelle Minsol Kim , Undergraduate Student at Wellesley College	2025 – Present 2025 – Present 2024 – Present 2024 – Present 2022 – 2024 2021 – 2023 2021 – 2022 2021 – 2022
TEACHING EXPERIENCE	Graduate Teaching Assistant , MIT Sloan School of Management ▪ Course: 15.S04 - Generative AI Lab: Action Learning Seminar on Generative AI, Its Applications, and the Digital Economy	2026 (Expected)
	Graduate Teaching Assistant , MIT Sloan School of Management ▪ 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.	Sep 2025 – Dec 2025
	Guest Lecture , Seoul Institute of the Arts ▪ Delivered a virtual seminar as an invited speaker via Zoom. ▪ Developed a design thinking workshop centered on conceptualizing a group scheduling tool.	Nov 2023
	Graduate Teaching Assistant , MIT CSAIL ▪ 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	Sep 2022 – Dec 2022
OTHER EXPERIENCE	▪ Software Engineer , BigPearl ▪ Featured Chrome Extension on Chrome Web Store – Reached over 2,000 users ▪ A 3D Rotating Cube , https://jaeyoon.io/cube – Developed an interactive 3D visualization	2017 2022 2017