Jaeyoon Song

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INTERESTS

Large Language Models, Controlled Experimentation, 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

Massachusetts Institute of Technology, Cambridge, MA — Feb 2021 – May 2024

- M.S., Management Research
- 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

- **Machine Learning**: LLM, RAG, Fine-Tuning (LoRA/QLoRA), NLP, Hugging Face, AutoGen
- **Data Science & Stats**: Controlled Experimentation, Clustering, Topic Modeling
- **Technical Stack**: Python (Pandas, Scikit-learn, PyTorch), JavaScript (React, Express), MongoDB

RESEARCH EXPERIENCE

Microsoft Research, New York, NY — 2025

- Research Intern
- Developed a backtestable evaluation benchmark 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 LLM-driven inference pipelines on driving video datasets to automatically generate dynamic factor masks using Meta SAM-2
- 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, A. Vossoughi*, H. Zhang*, D. Lee, **The Generative AI Divide: A Descriptive Analysis of Heterogeneous Adaptation Among Knowledge Contributors**. *Under Revision at CSCW 2026.*

WORKING PAPERS

[9] J. Song*, B. Luttges*, M. Alsobay, D. Goldstein, **Forecasting with LLMs: A Dataset for Rapid Backtesting Without Temporal Contamination**. *Work In Progress.*

[10] 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.

[11] 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.*

[12] 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

[13] 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

- **Arman Vossoughi**, Undergraduate Student at Boston University 2024 – 2025
- **Hongzun Zhang**, Master's Student at Boston University 2024 – 2025
- **Caitlin Ogoe**, Undergraduate Student at MIT 2022 – 2024
- **Alice Cai**, Undergraduate Student at Harvard University 2021 – 2023
- **Eve Silfanus**, Undergraduate Student at Wellesley College 2021 – 2022
- **Michelle Minsol Kim**, Undergraduate Student at Wellesley College 2021 – 2022

TEACHING EXPERIENCE

Graduate Teaching Assistant, MIT Sloan School of Management Jan 2026 – Present

- Course: 15.S04 - Generative AI Lab (Action Learning Seminar on Generative AI, Its Applications, and the Digital Economy)

Graduate Teaching Assistant, 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.
- Average Evaluation Rating: 7.0/7.0

Guest Lecture, 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.

Graduate Teaching Assistant, 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

OTHER EXPERIENCE

- **Software Engineer**, BigPearl 2017
- **Featured Chrome Extension on Chrome Web Store** – Reached over 2,000 users 2022
- **A 3D Rotating Cube**, https://jaeyoon.io/cube – Developed an interactive 3D visualization 2017