# Heeryung Choi, Ph.D.

Contact E40, Office 369, heeryung@mit.edu Information Massachusetts Institute of Technology. http://heeryung.github.io/ 1 Amherst St, Cambridge, MA, US 02142 University of Michigan, School of Information, Ann Arbor, MI, US **EDUCATION** Ph.D. in Information with Data Science Certificate, 2016 - 2022 Dissertation: SRLA: Self-Regulated Learning Analytics Advisor: Christopher Brooks Committee: Phil Winne, Stephanie Teasley, Andy Krumm Seoul National University, Program of Cognitive Science, Seoul, South Korea M.S. in Cognitive Science, 2014 - 2016 Advisor: Joonhwan Lee Seoul, South Korea Seoul National University, School of Education, B.A. in English Education, 2009 - 2014 Summa Cum Laude Massachusetts Institute of Technology, Research Cambridge, MA, US Center for Transportation and Logistics 2022 - present EXPERIENCE Digital Learning Postdoctoral Associate, Leading a project to develop and assess learning analytics dashboard for online learners of MITx MicroMasters Program in Supply Chain Management Grants and Grants AWARDS MIT Integrated Learning Initiative (ili) Learning Effectiveness Grant June, 2022 Awards Outstanding Graduate Student Instructor of the Year 2020 - 2021 Samsung PhD Scholarship 2016 - 2020 Korean National Research Scholarship 2015 Graduated with Honors (Summa Cum Laude) 2014 Seoul National University Merit Scholarship 2011 - 2013 Teaching Course Lead 2022 - present EXPERIENCE SC0x: Supply Chain Analytics (online, > 10k students) 2021 SIADS 505: Data Manipulation (online,  $\geq 20$  students) Teaching Assistant for Graduate Courses 2018-2021

SIADS 521: Visual Exploration of Data (online,  $\geq$  240 students)

SIADS 505: Data Manipulation (online,  $\geq 270$  students)

SI 630: Natural Language Processing: Algorithms and People (residential,  $\geq 70$  students)

SI 671: Data Mining (residential, > 50 students)

### Publications Peer-reviewed Journal Papers

**Choi, H.**, Jovanovic, J., Poquet, S., Brooks, C., Joksimovic, S., Williams, J. J. (2023). The Benefit of Reflection Prompts Encouraging Learning with Hints in Programming Education. *The Internet and Higher Education*.

Brooks, C., Quintana, R. M., **Choi, H.**, Quintana, C., NeCamp, T., Gardner, J. (2021). Towards Culturally Relevant Personalization at Scale: Experiments with Data Science Learners. *International Journal of Artificial Intelligence in Education*, pp. 1-22.

### Peer-reviewed Archival Conference Proceedings

Choi, H., Borrella, I., Ponce-Cueto, E. (2023). Meta-LAD: Developing a Learning Analytics Dashboard with Theoretically Grounded and Context-Specific Approaches. In *Proceedings of the 9th IEEE Learning with MOOCs (LwMOOCs)*. [in press] *Best paper nominated.* 

Choi, H., Winne, P. H., Brooks, C., Li, W., Shedden, K. (2023). Logs or Self-Reports? Misalignment Between Behavioral Trace Data and Surveys When Modeling Learner Achievement Goal Orientation. In *Proceedings of the 13th International Conference on Learning Analytics & Knowledge (LAK)*.

**Choi, H.**, Mills, C., Brooks, C., Doherty, S., Singh, A. (2022). Design Recommendations for Using Textual Aids in Data-Science Programming Courses. In *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education*.

**Choi, H.**, Dowell, N., Brooks, C., Teasley, S. (2019). Social Comparison in MOOCs: Perceived SES, Opinion, and Message Formality. In *Proceedings of the 9th International Conference on Learning Analytics & Knowledge (LAK)* (pp. 160-169).

Yan, W., Dowell, N., Holman, C., Welsh, S. S., **Choi, H.**, Brooks, C. (2019). Exploring Learner Engagement Patterns in Teach-Outs Using Topic, Sentiment and On-Topicness to Reflect on Pedagogy. In *Proceedings of the 9th International Conference on Learning Analytics & Knowledge (LAK)* (pp. 180-184).

Lin, Y., Dowell, N., Godfrey, A., Choi, H., Brooks, C. (2019). Modeling Gender Dynamics in Intra and Interpersonal Interactions During Online Collaborative Learning. In *Proceedings of the 9th International Conference on Learning Analytics & Knowledge (LAK)* (pp. 431-435).

## **Book Chapter**

Choi, H., Winne, P. H., Brooks, C. (2023). Reconfiguring Measures of Motivational Constructs Using State-Revealing Trace Data. In *Unobtrusive Observations of Learning in Digital Environments*, Springer (pp. 73-89).

# Workshops and Posters

Choi, H., Brooks, C., Hayward, C., Kitto, K., Gasevic, D., Pardo, A., Winne, P., Heffernan., N. (2021). Engineering Learning Analytics Technology Environments (ELATE): Understanding Iteration Between Data and Theory, and Design and Deployment, *Proceedings of the 11th inter-*

national conference on learning analytics & knowledge.

Choi, H., Dowell, N., Brooks, C., Teasley, S. (2019). Social Comparison in MOOCs: Perceived SES, Opinion, and Message Formality. In *Proceedings of the 9th International Conference on Learning Analytics & Knowledge* (pp. 160-169).

Choi, H., Wang, Z., Brooks, C., Collins-Thompson, K., Reed, B. G., Fitch, D. (2017). Social Work in The Classroom? A Tool to Evaluate Topical Relevance in Student Writing. In *Proceedings of the 10th International Conference on Educational Data Mining* (p. 386).

Choi, H., Brooks, C., Collins-Thompson, K. (2017). What Does Student Writing Tell Us about Their Thinking on Social Justice?. In *Proceedings of the Seventh International Learning Analytics & Knowledge Conference* (pp. 594-595).

## Manuscripts under Review

Choi, H., Borrella, I., Ponce-Cueto, E. Dashboard

Choi, H. Exploring Impacts of Achievement Goals and Time Resources on Academic Performance

#### INVITED TALKS

Choi, H. (2023). Upskilling SCM Professionals Through Online Learning, Massachusetts Institute of Technology, Center for Transportation and Logistics Monthly Research Briefing.

Choi, H. (2023). Survey or Trace Data?: Steps to Understand Self-Regulated Learning Better, Syracuse University, School of Education.

Choi, H. (2023). Meta-LAD: A Dashboard Supporting Self-Regulated Learning, Massachusetts Institute of Technology, Open Learning, MITx Digital Learning Lab.

Choi, H. (2022). Interviewed for INFO 4100 Learning Analytics, Cornell University, Department of Information Science.

Choi, H. (2021). Using Data to Understand Self-Regulated Learning, Massachusetts Institute of Technology, Center for Transportation and Logistics.

Choi, H. (2021). Engineering Learning Analytics Technology Environments (ELATE), University of Michigan, Center of Academic Innovation.

### SERVICE

### **Program Committee**

International Conference on Educational Data Mining 2024 (EDM' 24)	2023 - 2024
Co-chair for the posters and demonstrations track	
ACM Learning Analytics and Knowledge Conference (LAK)	2020 - present
Artificial Intelligence in Education Conference (AIED)	2020 - present

# Peer-reviewing (Journals)

International Journal of Artificial Intelligence in Education (IJAIED)	2020 - present
Journal of Learning Analytics (JLA)	2019 - present
British Journal of Educational Technology (BJET)	2022 - present

# Peer-reviewing (Conferences)

American Educational Research Association (AERA) Annual Meeting	2023 - present
Learning with MOOCs (LWMOOCs)	2023 - present
ACM Learning Analytics and Knowledge Conference (LAK)	2016 - present
Artificial Intelligence in Education Conference (AIED)	2020 - present
Learning with MOOCs (LWMOOCs)	2023 - present
Peer-reviewing (Grants)	
Society for Learning Analytics Research (SoLAR)	
Early Career Research (ECR) Grant	2023 - present
Leadership	
Society for Learning Analytics Research (SoLAR)	
Diversity and inclusion working group	2019 - present
University of Michigan Cohool of Information	
University of Michigan, School of Information,	2017 2010
Doctoral Executive Committee (DEC)	2017 - 2018

## Reference

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winne@sfu.ca

Stephanie Teasley, Ph.D. Research Professor, University of Michigan School of Information, steasley@umich.edu