Curriculum Vitae

Heeryung Choi, Ph.D.

Contact Information

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Massachusetts Institute of Technology,
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Education

University of Michigan, School of Information, Ann Arbor, MI, US
Ph.D. in Information with Data Science Certificate, 2016 - 2022
Dissertation: SRLA: Self-Regulated Learning Analytics
Advisor: Christopher Brooks
Committee: Phil Winne, Stephanie Teasley, Andrew Krumm

Seoul National University, Program of Cognitive Science, Seoul, South Korea
M.S. in Cognitive Science, 2014 - 2016
Advisor: Joonhwan Lee

Seoul National University, School of Education, Seoul, South Korea
B.A. in English Education, 2009 - 2014
Summa Cum Laude

Research Experience

Massachusetts Institute of Technology, Cambridge, MA, US
Center for Transportation and Logistics 2022 - present
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 Awards

Grants

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 Experience

Course Lead — 2022 - present
SC0x: Supply Chain Analytics (online, $\geq 10k$ students)

Instructor — 2021
SIADS 505: Data Manipulation (online, ≥ 20 students)

Teaching Assistant for Graduate Courses — 2018-2021
SIADS 521: Visual Exploration of Data (online, ≥ 240 students)
SIADS 505: Data Manipulation (online, ≥ 270 students)

SI 630: Natural Language Processing: Algorithms and People
(residential, $\geq$ 70 students)
SI 671: Data Mining (residential, $\geq$ 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

Singh, A., Fariha, A., Brooks, C., Soares, G., Henley, A., Tiwari, A., M, Chethan., **Choi, H.**, Gulwani, S. (in press) Investigating Student Mistakes in Introductory Data Science Programming. In *Proceedings of the 55th ACM Technical Symposium on Computer Science Education.*

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

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) Co-chair for the posters and demonstrations track	2023 - 2024
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, School of Information,
Doctoral Executive Committee (DEC) 2017 - 2018

Reference

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School of Information,
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Professor Emeritus & FRSC,
Simon Fraser University
Faculty of Education,
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Stephanie Teasley, Ph.D.
Research Professor,
University of Michigan
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steasley@umich.edu