JINA KANG

Department of Instructional Technology and Learning Sciences
Emma Eccles Jones College of Education and Human Services
Utah State University
EMAIL: jina.kang@usu.edu
PHONE: 435-797-0296

RESEARCH INTERESTS	Learning analytics, Data science education, Data literacy, Game-based learning, Augmented/Virtual Reality, Collaborative problem-solving, Design-based learning, STEM education
EDUCATION	Ph.D. in Curriculum and Instruction with concentration in Learning Technologies University of Texas at Austin – Texas, United States, 2017 Dissertation: Examining Scientific Thinking Processes in Open-ended Serious Games through Gameplay Data Advisor: Min Liu, Ed.D. M.A. in Curriculum and Instruction with concentration in Learning Technologies University of Texas at Austin – Texas, United States, 2012 Report: Attributes and Motivation in Game-Based Learning: A Review of the Literature M.S. in Astronomy and Space Science Kyung Hee University – Republic of Korea, 2003 Thesis: Time Monitoring Observations of SiO J=2-1 and J=3-2 Maser Emission toward Late-type Stars B.S. in Astronomy and Space Science Kyung Hee University – Republic of Korea, 2001
CURRENT APPOINTMENT	*Assistant Professor* Department of Instructional Technology and Learning Sciences, Emma Eccles Jones College of Education and Human Services, Utah State University, Aug 2018 – Present
PAST APPOINTMENT	*Postdoctoral Research Associate* Department of Curriculum and Instruction, College of Education, University of Illinois at Urbana-Champaign, July 2017 – July 2018, Advisor: Robb Lindgren *Teaching Assistant* Department of Curriculum and Instruction, College of Education, University of Texas at Austin, Aug 2012 – Jan 2017 *Research Assistant* The Knight Center for Journalism in the Americas, School of Journalism, University of Texas at Austin, July 2011 – July 2013 *Researcher* Korea Astronomy and Space Science Institute, Dec. 2000 – Dec. 2005
GRANTS	Connection of Earth and Sky with Augmented Reality (CEASAR): Transforming Collaborative Learning Practices with Shared and Embedded Digital Models (Funded)

Principle Investigator: Robb Lindgren
Agency: National Science Foundation
Period: 10/01/2018 – 9/30/2021
Role on Project: Co-PI
Total costs: $748,022 (USU Subaward: Total direct + indirect costs = $76,751)

Understanding the Needs, Scopes, and Strategies of Designing Cybersecurity Education Module for Nursing Students (Funded)
Principle Investigator: Mahdi Nasrullah Al-Ameen
Agency: USU Research Catalyst
Period: 01/01/2020 – 11/30/2020
Role on Project: Co-PI
Total costs: $19,992

Developing Scientific Data Literacy in Undergraduate Data Science (Pending)
Principle Investigator: Jina Kang
Agency: National Science Foundation
Period: 3/01/2021 – 2/29/2024 (Pending)
Role on Project: PI
Total costs: $299,814

FELLOWSHIPS & AWARDS	Graduate Mentor of the Year, Instructional Technology & Learning Sciences, Utah State University, 2020 DC Faculty Fellows, Utah State University, 2019 Early Career Symposium, AECT International Convention, 2018 Dissertation Writing Fellowship, Univ. of Texas at Austin, 2017 Janey and Melvin Lack Endowed Graduate Fellowship in Education, Univ. of Texas at Austin, 2016 Cora Merriman Martin Scholarship, Univ. of Texas at Austin, 2016 Virginia C. Patterson Endowed Graduate Scholarship, Texas Exes, 2015 Lee Hage and Joseph D. Jamail Endowed Scholarship in Education, Univ. of Texas at Austin, 2015 College of Education Centennial Endowed Presidential Scholarship, Univ. of Texas at Austin, 2015 Peabody Scholarship in Education, Univ. of Texas at Austin, 2015 AACE Best Paper Award, EdMedia 2013 World Conference on Educational Media and Technology, 2013 Faculty/Student Collaboration Travel Awards, Univ. of Texas at Austin, 2012-2017 Korea Science Content Award, Korea Ministry of Science and Technology, 2006 Superiority Scholarship, Kyung Hee University, 1999 Exemplary Scholarship, Kyung Hee University, 1997-1998
PUBLICATIONS	**PEER-REVIEWED JOURNAL ARTICLES** [25] **Kang, J.**, Diederich, M. [*], Lindgren, R, & Junokas, M. (under review). Gesture patterns and learning in an embodied XR science simulation. Manuscript submitted for publication. [24] **Kang, J.**, Baker, R., Zhang, F., Na., C. [*], & Feldon, D. (under review) Bayesian knowledge tracing as a mechanism to detect doctoral threshold concepts. Manuscript submitted for publication.

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[*] indicates co-authors are current students.

[23] Xu, X., **Kang, J.**, & Yan, L.[*] (under review). Understand embodied immersion in technology-enabled embodied learning environment. Manuscript submitted for publication.

[22] Lindgren, R., Morphew, J., **Kang, J.**, Planey, J., & Mastre, J. (under review). Learning and Transfer Effects of Embodied Simulations Targeting Cross-Cutting Concepts in Science. Manuscript submitted for publication.

[21] Blaney, J., Wofford, A., Jeong, S., **Kang, J.**, & Feldon, D. (under review) How can I contribute in a way that only I can?": A narrative analysis of STEM doctoral students' academic and professional trajectories. Manuscript submitted for publication.

[20] Blaney, J., **Kang, J.**, Wofford, A., & Feldon, D. (2020). Mentoring Relationships Between STEM Doctoral Students and Postdocs. *Studies in Graduate and Postdoctoral Education*.

[19] **Kang, J.** & Liu, M. (2020). Investigating navigational behavior patterns of students across at-risk category within an open-ended serious game. *Technology, Knowledge and Learning*.

[18] Feldon, D. F., Litson, K., Jeong, S., Blaney, J. M., **Kang, J.**, Miller, C., … Roksa, J. (2019). Postdocs' lab engagement predicts trajectories of PhD students' skill development. *Proceedings of the National Academy of Sciences*, *116*(42), 20910–20916. https://doi.org/10.1073/pnas.1912488116

[17] Lindgren, R., Morphew, J., **Kang**, J., & Junokas, M. (2019). An Embodied Cyberlearning Platform for Gestural Interaction with Cross-Cutting Science Concepts. *Mind, Brain, and Education*, *13*(1), 53-61.

[16] **Kang, J.**, Lindgren, R., & Planey, J. (2018). Exploring emergent features of student interaction within an embodied science learning simulation. *Multimodal Technologies and Interaction, 2*(3), 39.

[15] Junokas, M., Lindgren, R., **Kang, J.**, & Morphew, J. (2018). Enhancing multimodal learning through personalized gesture recognition. *Journal of Computer Assisted Learning*. 1–8. doi: https://doi.org/10.1111/jcal.12262

[14] Liu, M., **Kang, J.,** Zou, E., Lee, H., & Pan, C. (2017). Using data to understand how to better design adaptive learning. *Technology, Knowledge and Learning*, 1-28. doi: 10.1007/s10758-017-9326-z

[13] **Kang, J.,** Liu, M., & Qu, W. (2017). Using gameplay data to examine learning behavior patterns in a serious game. *Computers in Human Behavior*, 72, 757-770. doi: 10.1016/j.chb.2016.09.062

[12] Liu, M., Lee, J., **Kang, J.**, & Liu, S. (2016) What we can learn from the data: A multiple-case study examining behavior patterns by students with different characteristics in using a serious game. *The Technology, Knowledge and Learning, 21*(1), 33-57. doi: 10.1007/s10758-015-9263-7

[11] Liu, M., McKelroy, E., **Kang, J.**, Harron, J., & Liu, S. (2016). Examining the use of Facebook and Twitter as an additional social space in a MOOC. *The American Journal of Distance Education, 30*(1), 14-26. doi: 10.1080/08923647.2016.1120584

[10] Liu, M., Navarrete, C., Scordino, R., **Kang, J.**, Lim, S., Ko, Y. (2016). Examining teachers' use of iPads: Comfort level, perception, and use. *Journal of Research on Technology in Education, 48*(3), 159-180.

[9] Liu, M., **Kang, J.**, & McKelroy, E. (2015). Examining learners' perspective of taking a MOOC: Reasons, excitement, and perception of usefulness. *Educational Media International, 52*(2)*.* doi:10.1080/09523987.2015.1053289

[8] Liu, S., **Kang, J.**, (2014). An overview of game-based learning: Motivations and authentic learning experience. *The Texas Education Review*. 2(2), 157-162.

[7] Liu, M., **Kang, J.**, Cao, M., Lim, M., Ko, Y., Myers, R., & Weiss, A. S. (2014). Understanding MOOCs as an emerging online learning tool: Perspectives from the students. *The American Journal of Distance Education, 28*(3).

[6] Liu, M., Horton, L., Lee, J., **Kang, J.**, Rosenblum, J., O'Hair, M. & Lu, C. W. (2014). Creating a multimedia enhanced problem-based learning environment for middle school science: Voices from the developers. *Interdisciplinary Journal of Problem-Based Learning. 8*(1). doi: 10.7771/1541-5015.1422

[5] Liu, M., Rosenblum, J., Horton, L., & **Kang, J.** (2014). Designing science learning with game-based approaches. *Computers in the Schools, 31*(1-2), 84-102. doi:10.1080/07380569.2014.879776

[4] Liu, M., Horton, L., **Kang, J.**, Kimmons, R., & Lee, J. (2013). Using a ludic simulation to make learning of middle school space science fun. *The International Journal of Gaming and Computer-Mediated Simulations, 5*(1).

[3] Kimmons, R., Liu, M., **Kang, J.**, & Santana, L. (2011-2012). Attitude, achievement, and gender in a middle school science-based ludic simulation for learning. *Journal of Educational Technology Systems, 40*(4), 341-370.

[2] **Kang, J.**, et al. (2006). Time monitoring observations of SiO J=2-1 and J=3-2 maser emission toward late-type stars. *The Astrophysical Journal Supplement Series, 165*, 360-385.

[1] **Kang, J.**, et al. (2004). A study of thermal analysis of KAONICS. *Journal of Astronomy and Space Sciences*, *21*(4), 467-480.

BOOK CHAPTERS & CONFERENCE PROCEEDINGS

[9] **Kang, J.**, Moon, J. & Diederich, M.[*] (2019). Educational Games and Gamification: From Foundations to Applications of Data Analytics. In A. Tlili & M. Chang (Eds.). *Smart Computing and Intelligence.* Springer.

[8] **Kang, J.**, An, D., Yan, L.[*], & Liu, M. (2019). Collaborative problem-solving process in a science serious game: Exploring Group Action Similarity Trajectory. *Proceedings of the 12th International Conference on Educational Data Mining*. (34.6% Acceptance Rate)

[7] **Kang, J.,** Liu, M., & Liu, S. (2017). Tracking students' activities in serious games. In F.-Q. Lai & J. D. Lehman (Eds.), *Learning and Knowledge Analytics in Open Education* (pp. 125-137). Springer International Publishing. Retrieved from http://link.springer.com/chapter/10.1007/978-3-319-38956-1_10

[6] Liu, M., **Kang, J.**, Liu, S., Zou, W., & Hodson, J. (2017). Learning analytics as an assessment tool in serious game: A review of literature. In M. Ma, A. Oikonomou, & L. Jain (Eds.). *Serious Games and Edutainment Applications* (2nd ed.) (pp. 537-563). New York: Springer. doi: 10.1007/978-3-319-51645-5_24

[5] Liu, M., **Kang, J.,** McKelroy, E., Harron, J., & Liu, S. (2016). Investigating students' interactions with discussion forums, Facebook, and Twitter in a MOOC and their perceptions. In G. B. Khan (Ed.). *Revolutionizing Modern Education through Meaningful E-Learning Implementation* (pp. 18-41). Doi: 10.4018/978-1-5225-0466-5.ch002

[4] Liu, M., **Kang, J.,** Lee, J, Winzeler, E., & Liu, S. (2015). Examining through visualization what tools learners access as they play a serious game for middle school science. In C. S. Loh, Y. Sheng, & D. Ifenthaler (Eds.) *Serious Games Analytics*: *Methodologies for Performance Measurement, Assessment, and Improvement* (pp. 181-208)*.* Switzerland: Springer. doi: 10.1007/978-3-319-05834-4

[3] Liu, M., Rosenblum, J., Horton, L. & **Kang, J.** (2014). Using a Game-Based Approach to Design a Rich Media Learning Environment. In J. Viteli & M. Leikomaa (Eds.), *Proceedings of EdMedia 2014--World Conference on Educational Media and Technology* (pp. 326-338). Tampere, Finland: Association for the Advancement of Computing in Education (AACE). Retrieved August 18, 2020 from https://www.learntechlib.org/primary/p/147520/.

[2] Liu, M., Horton, L., **Kang, J.**, Kimmons, R. & Lee, J. (2013). Making Learning Fun Through a Ludic Simulation. In J. Herrington, A. Couros & V. Irvine (Eds.), *Proceedings of EdMedia 2013--World Conference on Educational Media and Technology* (p. 2535). Victoria, Canada:

Association for the Advancement of Computing in Education (AACE). Retrieved August 18, 2020 from https://www.learntechlib.org/primary/p/114714/.

[1] **Kang, J.** (2013). Attributes and Motivation in Game-Based Learning: A Review of the Literature. In J. Herrington, A. Couros & V. Irvine (Eds.), *Proceedings of EdMedia 2013-World Conference on Educational Media and Technology* (p. 2546). Victoria, Canada: Association for the Advancement of Computing in Education (AACE). Retrieved August 18, 2020 from https://www.learntechlib.org/primary/p/114715/.

CONFERENCE PRESENTATIONS	[30] Kim, T., Lee, J., Lindgren, R., & **Kang, J.** (2020). Developing Virtual Reality Data Kit for Education Researchers. Paper to be presented at Learning Sciences Graduate Student Conference 2020 [29] Yan. L.[*] & **Kang, J.** (2020). Investigating Learning Processes with Argumentative Writing in a Science Learning Game: A Content Analysis. Paper to be presented at 2020 AECT International Convention [28] Xu, X., **Kang, J.**, & Yan. L.[*] (2020). Empower Bodily Interactions with Technologies: The Design, Assessment, and Technologies in Embodied Interactive Learning. Paper to be presented at 2020 AECT International Convention [27] Kimball, N., Lindgren, R., **Kang, J.**, Mercier, M. Guerrero, B., .., Lewandowski, M. (2020). Connections of Earth and sky with augmented reality (CEASAR). Paper presented at 2020 American Educational Research Association (AERA), San Francisco, Apr. [26] **Kang, J.**, Lindgren, R., & Junokas, M. (2020). Using Gesture Features to Assess Learning in a Whole-Body Science Simulation. Paper presented at 2020 American Educational Research Association (AERA), San Francisco, Apr. [25] Blaney, J., **Kang, J.**, Wofford, A., & Feldon, D. (2020). My Mental Support and My Scientific Support": Mentoring Relationships Between STEM Doctoral Students and Postdocs. Paper presented at 2020 American Educational Research Association (AERA), San Francisco, Apr. [24] Blaney, J., Jung, S., **Kang, J.**, & Feldon, D. (2020). How STEM Doctoral Students Make Meaning of their Academic and Professional Trajectories: A Narrative Analysis. Paper presented at 2020 American Educational Research Association (AERA), San Francisco, Apr. [23] Xu, X. & **Kang, J.** (2019). AECT ECS Lights the Way to the Professional Career. Paper presented at 2019 AECT International Convention, Las Vegas, NV, Oct. [22] Yan. L.[*] & **Kang, J.** (2019). Collaborative Problem-Solving in Computer-based Learning Environments: A Review of Literature on Issues and Methods. Paper presented at 2019 AECT International Convention, Las Vegas, NV, Oct. [21] **Kang, J.**, Lindgren, R., & Sroczynski, S. (2019). *Student gestural interaction patterns within an embodied science simulation.* Paper presented at 2019 American Educational Research Association (AERA), Toronto, Canada, Apr. [20] **Kang, J.**, Planey, J., & Lindgren, R. (2018). *Exploring emergent features of student interaction within an embodied science simulation*. Paper presented at 2018 AECT International Convention, Kansas City, MO, Oct. [19] **Kang, J.**, Lindgren, R., & Junokas, M. (2018). *Understanding full-body experience with a science learning simulation.* Poster presented at 2018 CRESSTCON, Los Angeles, CA, Oct. [18] Morphew, J. W., Alameh, S., Sroczynski, S., Lindgren, R., & **Kang, J.** (2018). *Effect of an embodied simulation on student gesturing and science reasoning.* Paper presented at the annual meeting of the National Association for Research in Science Teaching. Atlanta, GA, Mar. [17] **Kang, J.**, & Liu, M. (2018). *Examining scientific inquiry behaviors and learner performance in a serious game.* Paper presented at 2018 American Educational Research Association (AERA), New York, NY, Apr.

[16] **Kang, J**., & Pan, Z. (2017). *Navigation behavior patterns of students with and without at-risk in a serious game.* Paper presented at 2017 AECT International Convention, Jasonville, FL, Nov.

[15] **Kang**, J., Liu, M., & Qu, W. (2017). *Using gameplay data to examine learning behavior patterns in a serious game*. Paper presented at 2017 American Educational Research Association (AERA), San Antonio, TX, Apr.

[14] **Kang**, J., & Liu, M. (2016). *Examining students' learning behaviors during the problem-solving process in a serious game: A prediction study.* Paper presented at 2016 American Educational Research Association (AERA), Washington, DC, April.

[13] Liu, M., **Kang**, J., McKelroy, E., Harron, J., & Liu, S. (2016). *Investigating Students' Interactions with Discussion Forums, Facebook, and Twitter in a MOOC and Their Perceptions*. Paper presented at 2016 American Educational Research Association (AERA), Washington, DC, April.

[12] Liu, M., Lee, J., **Kang**, J., & Liu, S. (2016). *A multiple-case study examining behavior patterns by students with different characteristics in a serious game*. Paper presented at 2016 American Educational Research Association (AERA), Washington, DC, April.

[11] Liu, M., McKelroy, E., **Kang**, J., Harron, J., & Liu, S. (2015). *Examining the Use of Facebook and Twitter as an additional social space in a MOOC*. Paper presented at 2015 AECT International Convention, Indianapolis, Indiana, United States.

[10] Liu, M., Horton, L., Lee, J., **Kang, J**., Liu, S., Myers, R. & Maxwell, A. (2015). *Designing a New Media Enhanced Learning Environment: Our Development Model.* Paper presented at EdMedia: World Conference on Educational Media and Technology, Montréal, Canada.

[9] Liu, M., **Kang, J.**, Lee, J., Winzeler, E., & Liu, S. (2015). *Exploring How Learners Use a Serious Game for Middle School Science Through Visualization.* Paper presented at AERA Annual Meeting, Chicago, IL, United States.

[8] Liu, M., **Kang, J.**, Cao, M., Lim, M., Ko, Y., Myers, R., & Weiss, S., A. (2014). *Understanding learners' perspective of taking a MOOC.* Paper presented at 2014 AECT International Convention, Jacksonville, Florida, United States.

[7] Liu, M., **Kang, J.**, Cao, M., Lim, M., Ko, Y. (2013). *Understanding MOOCs as an emerging online learning tool: Perspectives from the students*. Paper presented at 2013 E-Learn, Las Vegas, NV, United States.

[6] Kimmons, R., Liu, M., **Kang, J.** & Santana, L. (2012). *Attitude, achievement, and gender in a middle school science-based ludic simulation for learning.* Paper presented at 2012 Society for Information Technology & Teacher Education International Conference. Austin, Texas, USA: AACE.

[5] Jin, H., Park, S., Yuk, I., Lee, S., Moon, B., Han, J., Seon, K., **Kang, J.**, Kong, K., Nam, W., & Lee, D. (2004). *Design of KAO Near Infrared Camera System on the SOAO 0.6m Telescope.* Paper presented at the Korean Space Science Society, Korea.

[4] Moon, B., **Kang, J.**, Lee, S., Yuk, I., Jin, H., Sun, K., & Park, S. (2004). *A study of mechanical design and thermal analysis of KAONICS.* Paper presented at the Korean Space Science Society, Korea.

[3] **Kang, J.** et al. (2002) *Time monitoring observations of SiO J=2-1 and J=3-2 maser emission toward late-type stars II. Analysis,* Paper presented at the Korean Astronomical Society, Korea.

[2] **Kang, J.** et al. (2002) *Time monitoring observations of SiO J=2-1 and J=3-2 maser emission toward late-type stars,* Paper presented at the Korean Astronomical Society, Korea.

[1] Kim, H., Kim, S., **Kang, J**., & Kim, Y. (2000). *A search for CO2-CO2 Dimers in the Atmosphere of Venus, and CO-CO Dimers in the dark clouds of IC5146 and L134N*, Paper presented at the Korean Astronomical Society, Korea.

TEACHING EXPERIENCE	GRADUATE COURSES • Multimedia Production for Instruction and Training (ITLS 6290), Instructional Technology and Learning Sciences Department, USU, Spring 2019 • Practicum in eLearning (ITLS 6195), Instructional Technology and Learning Sciences Department, USU, Spring 2019 • Creative Project (ITLS 6960), Instructional Technology and Learning Sciences Department, USU, Spring 2019 UNDERGRADUATE COURSES • Data Visualization (ITLS 4130), Instructional Technology and Learning Sciences Department, USU, Fall 2020, Fall 2019 • Multimedia Production for Instruction and Training (ITLS 5290), Instructional Technology and Learning Sciences Department, USU, Spring 2019 ***Teaching Assistant*** GRADUATE COURSES • Instructional Systems Design (EDC 390T), Department of Curriculum and Instruction, UT Austin, Fall 2014, Fall 2015, Fall 2016 • Interactive Multimedia Design and Production (EDC 385G), Department of Curriculum and Instruction, UT Austin, Fall 2012, Spring 2013, Spring 2015, Spring 2016 • Design and Strategies for New Media (EDC 385G), Department of Curriculum and Instruction, UT Austin, Fall 2013 • Educational Research & Design (EDC 380R), Department of Curriculum and Instruction, UT Austin, Summer 2013, Summer 2014, Summer 2015, Summer-2016 UNDERGRADUATE COURSES • Live, Play, Communicate, and Learn with Digital Media Technologies (UGC 302), Undergraduate Studies, UT Austin, Spring 2013, Spring 2015, Spring 2016
PAST PROFESSIONAL EXPERIENCE	*Intern (Interface/User Experience Designer)* Consumers Union, Publisher of Consumer Reports, 2014 • Designed metrics/analytics page in the stori.es survey platform using prototyping tools • Prototyped and tested the feature ideas with users (staff members at nonprofit organizations) • Collaborated with the stori.es software engineers in an agile software development environment • Communicated ideas using a software project management system *Serious Game Developer* Alien Rescue Project, 2011 – 2017 • Directed game interface design team and content design team • Developed game interface and cognitive tools • Designed a teachers' dashboard based on learning analytics research • Developed an online teachers' manual on Ruby on Rails *Curriculum Developer* Weizmann Institute, Korea, 2011

- Designed curriculum and develop 'Creative Thinking in STEM' program for middle school students

E-Learning Project Developer/Curriculum Developer
Mindalive Co., Ltd, Korea, 2006-2008
- Developed an E-Learning system
- Designed a game-based learning application for mathematics
- Managed and developed an online science community
- Developed scientific content to develop children's creativity
- Directed "Science Camp for Members of Online Science Community"
- Taught science and mathematics instructors of the gifted children
- Taught astronomy for middle school students in the "Camp for Gifted Students"

Science Educational Game Content Developer
DongaScience Co., Korea, 2005-2006
- Developed content and scenario for science games in Adobe Flash

SERVICE	
	UNIVERSITY SERVICE

UNIVERSITY SERVICE
Awards Committee, ITLS, USU (2020 – Present)
Tenure Track Faculty Search Committee, ITLS, USU (2019)
Academic Analytics Specialist Search Committee, Center for Student Analytics, USU (2019)
Tenure Track Faculty Search Committee, ITLS, USU (2018)

DISCIPLINARY SERVICE
REVIEW PANEL MEMBER
  National Science Foundation (Oct. 2018)

PROGRAM COMMITTEE
  Program Committee, 2020 International Conference on Educational Data Mining
  Workshop on EDM & Games: Leveling Up Engaged Learning with Data-Rich Analytics, 2019 International Conference on Educational Data Mining

AD HOC MANUSCRIPT REVIEW
  Computers and Education
  Computers in Human Behavior
  Educational Technology Research and Development
  Interdisciplinary Journal of Problem-Based Learning
  Journal of Research on Technology in Education
  Texas Education Review
  ACM Transactions on Computing Education
  American Educational Research Association (AERA) Conference
  International Conference on Computer Supported Collaborative Learning (CSCL)
  Immersive Learning Research Network (iLRN) Conference

UNDERGRADUATE RESEARCH MENTOR
  The University of Texas at Austin, Integrative Computational Education and Research Traineeship: Research Experience for Undergraduates, 2014-2015

INVITED TALK
  Presenter: "Designing and examining scientific thinking processes in technology-enhanced learning environments", Physics Colloquium, Utah State Univ., Apr, 2019

	Guest Speaker: "*What we can learn from data: Leveraging learning analytics in technology-enhanced learning environments*", DELTA Graduate Seminar, Univ. Illinois at Urbana-Champaign, April 2018
	Guest Speaker: "*Examining Scientific Thinking Processes in Open-ended Serious Games through Gameplay Data*", Research and Assessment team meeting, Faculty Innovation Center, Univ. Texas at Austin, May 2017
	Co-Presenter: "*Adventures in Alien Rescue*", College of Education Advisory Council Teaching Showcase, Univ. Texas at Austin, 2014
	Classroom Guest Speaker: "*Writing your MA report: what's it like, how to prepare for it, what to pay attention to*", Educational Research class, Univ. Texas at Austin, 2012
PROFESSIONAL ORGANIZATIONS	*Member*: American Educational Research Association (AERA), 2014-present *Member:* Association for Educational Communications and Technology (AECT), 2012-present *Member:* International Educational Data Mining Society (EDM), 2019-present *Member*: Association for the Advancement of Computing in Education (AACE), 2012-2014 *Member*: Korean Astronomical Society, 2001-2005 *Member:* Korean Space Science Society, 2001-2005 President: Female Student Association in the Department of Astronomy & Space Science at Kyung Hee University, 1999 *Manager:* Student Association in the School of Natural Sciences at Kyung Hee University, 1997-1998