

Emily Jensen
emily.jensen@colorado.edu
emilykjensen.com

EDUCATION

PhD in Computer Science and Cognitive Science Advisors: Bradley Hayes and Sriram Sankaranarayanan <i>University of Colorado Boulder</i>	2018 - Present
MS in Computer Science <i>University of Colorado Boulder</i>	2022
BS in Mathematics, summa cum laude BA in Cognitive Science, summa cum laude <i>Case Western Reserve University</i>	2018

RESEARCH

Journeyman Fellow <i>Army Research Lab, HRED</i>	Summer 2022 - Present
Research Assistant Appointment <i>University of Colorado Boulder</i>	Fall 2018 - Present
Undergraduate Researcher <i>REU at Florida Institute of Technology</i>	Summer 2017

PUBLICATIONS

In Review

Journal paper submission to Clinical Psychological Science.

Journal paper submission to Educational Researcher.

2023

Jensen, E., Hayes, B., and Sankaranarayanan, S. (2023) *More Than a Number: A Multi-dimensional Framework For Automatically Assessing Human Teleoperation Skill*. To appear in Companion of the 2023 ACM/IEEE International Conference on Human-Robot Interaction.

2022

Jensen, E., Luster, M., Pitts, B., and Sankaranarayanan, S. (2022) *Using Artificial Potential Fields To Model Driver Situational Awareness*. In 4th IFAC Workshop on Cyber-Physical and Human-Systems.

Jensen, E., Luster, M., Yoon, H., Pitts, B., and Sankaranarayanan, S. (2022) *Mathematical Models of Human Drivers Using Artificial Risk Fields*. IEEE 25th International Conference on Intelligent Transportation Systems (ITSC). doi:10.1109/ITSC55140.2022.9922389.

Leite, W.L., Roy, S., Chakraborty, N., Michailidis, G., Huggins-Manley, A.C., D’Mello, S.K., Faradonbeh, M.K.S., **Jensen, E.**, et al. (2022) *A novel video recommendation system for algebra: An effectiveness evaluation study*. Proceedings of the 12th International Learning Analytics and Knowledge Conference (LAK22). doi:10.1145/3506860.3506906.

D’Mello, S.K., and **Jensen, E.** (2022). *Emotional Learning Analytics*. Handbook of Learning Analytics. doi:10.18608/hla22

2021

Villanueva, C.M., Ibonie, S.G., **Jensen, E.**, et al. (2021). *Emotion differentiation and bipolar disorder risk in young adults before and during the COVID-19 pandemic: An experience-sampling approach*. Poster abstract accepted to the 2021 Society for Research in Psychopathology (SRP) Annual Conference.

Jensen, E., et al. (2021). *What You Do Predicts How You Do: Prospectively Modeling Student Quiz Performance Using Activity Features in an Online Learning Environment*. Proceedings of the Learning Analytics and Knowledge 2021 (LAK21) Conference. doi:10.1145/3448139.3448151 [runner-up for best paper award]

Jensen, E., Pugh, S.L., and D’Mello, S.K. (2021). *A Deep Transfer Learning Approach to Automated Teacher Discourse Feedback*. Proceedings of the Learning Analytics and Knowledge 2021 (LAK21) Conference. doi:10.1145/3448139.3448168

2020

Jensen, E., et al. (2020). *Toward Automated Feedback on Teacher Discourse to Enhance Teacher Learning*. Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems Proceedings (CHI 2020). doi:10.1145/3313831.3376418

2019

Jensen, E., Hutt, S., and DMello, S.K. (2019). *Generalizability of Sensor-Free Affect Detection Models in a Longitudinal Dataset of Tens of Thousands of Students*. Proceedings of the 12th International Conference on Educational Data Mining (EDM 2019). International Educational Data Mining Society. [link to paper]

2018

Bryan, K.J., Solomon, M., **Jensen, E.**, et al. (2018). *Classification of Rail Switch Data Using Machine Learning Techniques*. ASME/IEEE Joint Rail Conference, 2018

doi:10.1115/JRC2018-6175.

PRESENTATIONS

2022

Using Artificial Potential Fields To Model Driver Situational Awareness. (December 2, 2022). Lightning talk and poster presentation at Cyber-Physical Human-Systems 2022 Workshop, Houston, Texas.

Mathematical Models of Human Drivers Using Artificial Risk Fields. (October 5, 2022). Conference talk at Intelligent Transportation Systems 2022 Conference, virtual.

2021

Navigating the Computer Science PhD. (August 20, 2021). CU Boulder Graduate Orientation, virtual.

Financial Basics. (August 18, 2021). CU Boulder Graduate Orientation, virtual.

What You Do Predicts How You Do: Prospectively Modeling Student Quiz Performance Using Activity Features in an Online Learning Environment. (April 14, 2021). Conference talk at Learning Analytics and Knowledge 2021 Conference, virtual.

A Deep Transfer Learning Approach to Automated Teacher Discourse Feedback. (April 14, 2021). Conference talk at Learning Analytics and Knowledge 2021 Conference, virtual.

2020

Toward Automated Feedback on Teacher Discourse to Enhance Teacher Learning. (April 15, 2020). Poster at CU Boulder Institute of Cognitive Science, Boulder, CO.

2019

Generalizability of Sensor-Free Affect Detection Models in a Longitudinal Dataset of Tens of Thousands of Students. (July 5, 2019). Conference talk at Educational Data Mining 2019 Conference, Montréal, Canada.

Generalizability of Sensor-Free Affect Detection Models. (April 18, 2019). Poster presentation at CU Boulder Graduate Research Expo, Boulder, CO. [won best presentation]

Generalizability of Sensor-Free Affect Detection Models. (April 12, 2019). Poster presentation at CRA-W Grad Cohort, Chicago, IL.

TEACHING

Spring 2023

Introduction to Artificial Intelligence and Machine Learning (facilitator)

- Seminar series presenting broad AI and ML concepts for a non-technical audience.
- Developed curriculum and materials.
- Facilitated discussions to develop interdisciplinary research collaboration with CU Boulder and ARL.

Summer 2022

Summer Intensive Research Internship in Cyber-Physical Systems at University of New Mexico (facilitator)

- Continuation of Summer 2021 workshop.

Introduction to Computational Thinking

- Co-developed and organized weekly pilot workshop for graduate students.
- Created syllabus and presented topics such as logical flow, creating functions, and project management.
- Presented examples in Python and R.

Summer 2021

Summer Intensive Research Internship in Cyber-Physical Systems at University of New Mexico (facilitator)

- Developed 3-hour workshop on introductory data analysis using Python.
- Created lesson plan, follow-along materials, detailed solutions, and facilitated live (virtual) workshop.

Spring 2021

CSCI 3202: Introduction to Artificial Intelligence. (Teaching Assistant)

- Taught subjects such as search, machine learning, and reinforcement learning.
- Responsibilities included developing quizzes and projects, holding office hours, and facilitating study sessions.

Fall 2020

CSCI 5100/6100: Computer Science Colloquium. (Teaching Assistant)

- Taught strategies for interacting with technical talks from a variety of research areas.

- Responsibilities included providing feedback on student responses and questions to the colloquium talks.

CSCI 6000: Introduction to the Computer Science PhD Program. (Teaching Assistant)

- Taught basic research skills and strategies to be successful in the program.
- Responsibilities included providing feedback on reading responses and organizing panels of current and recently graduated students.

SERVICE AND LEADERSHIP

Computer Science Graduate Student Association

<i>Representative to graduate student government</i>	Fall 2018 - Spring 2019
<i>Student member of faculty search committee</i>	Spring 2019
<i>Student member of department Graduate Committee</i>	Fall 2019 - Spring 2020
<i>Developed and analyzed survey of grad student well-being</i>	Spring 2019, 2020
<i>Vice Chair</i>	Spring 2020 - Fall 2020
<i>Chair</i>	Spring 2021 - Fall 2021

Graduate and Professional Student Government

<i>Computer Science department representative</i>	Fall 2018 - Spring 2019
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- Served on travel awards committee
- Served on graduate housing advisory committee

<i>Graduate Senator to CU Student Government</i>	Fall 2018 - Spring 2019
<i>Director of Communications</i>	Fall 2019 - Spring 2021
<i>President of Engagement</i>	Fall 2021 - Spring 2022
<i>Chief of Staff</i>	Fall 2022 - Present

ACM International Conference on Multimodal Interaction

<i>Conference Webchair</i>	2018
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Educational Data Mining Conference

<i>Program Committee Member</i>	2022, 2023
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Learning Analytics and Knowledge Conference

<i>Program Committee Member</i>	2022
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Reviewer: AIED (2020, 2021), CHI (2021), L@S (2021), HRI (2023)
Computers & Education (2022), Higher Education Pedagogies (2022)

OUTREACH AND MENTORSHIP

Masters Students	
• Tetsumichi Umada	2019-2020
Undergraduate Students	
• Xuefei Sun	2019
High School Students	
• Conner Malley	2019

• Tanishqa Puhan	2021
Graduate School Peer Mentor	2019, 2020
Science Fair Judge at Colorado STEM Academy	2019, 2020
Tech Help Facilitator at Boulder Public Library	2019 - Present

AFFILIATIONS	Association for Computing Machinery/SIGCHI	
	Phi Beta Kappa Academic Honor Society, <i>Ohio Alpha Chapter</i>	
	Pi Mu Epsilon National Honorary Mathematics Society, <i>Ohio Sigma Chapter</i>	
	Phi Sigma Rho engineering sorority, <i>Omicron Chapter</i>	
	• National Ritual Director	2021 - Present

HONORS AND AWARDS	CPHS Fellow <i>Cyber-Physical Human-Systems Workshop</i>	2022
	Volunteer of the Year Award <i>Phi Sigma Rho National Sorority</i>	2022
	David T. Spalding Graduate Teaching Fund Fellowship Award <i>University of Colorado Boulder</i>	2022
	Graduate and Professional Student Government Travel Grant <i>University of Colorado Boulder</i>	2021
	Outstanding Service Award <i>University of Colorado Boulder</i>	2020
	Department Student Travel Award <i>University of Colorado Boulder</i>	2020
	Best Research Poster <i>University of Colorado Boulder</i>	2019
	Computer Science Departmental Fellowship <i>University of Colorado Boulder</i>	2018
	Webster Godman Simon Mathematics Award <i>Case Western Reserve University</i>	2018
	President's Commendation for outstanding service <i>Phi Sigma Rho National Sorority</i>	2017
	Phi Beta Kappa Prize for outstanding sophomore in liberal arts and sciences <i>Case Western Reserve University</i>	2016