Jennifer K. Olsen

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Academic Positions

Assistant Professor, Department of Computer Science
University of San Diego, August 2020-Present

Postdoctoral Researcher in Computer-Human Interaction in Learning and Instruction (CHILI) Lab
Ecole Polytechnique Federale de Lausanne, Switzerland, September 2017-July 2020
Advisor: Pierre Dillenbourg

Education

Ph.D. in Human-Computer Interaction, August 2012-August 2017
Carnegie Mellon University, Pittsburgh, Pennsylvania
Thesis: Orchestrating Combined Collaborative and Individual Learning in the Classroom
Advisors: Vincent Aleven and Nikol Rummel

Master of Science in Human-Computer Interaction, August 2012-May 2015
Carnegie Mellon University, Pittsburgh, Pennsylvania

Bachelor of Science in Cognitive Science, August 2006-May 2010
Carnegie Mellon University, Pittsburgh, Pennsylvania
Double Major in Human-Computer Interaction; Minor in Computer Science
Senior Honors Thesis: The Effect of Color on Conscious and Unconscious Cognition

Grants and Funds

PI Meeting and Pilot Studies in Gandhinagar, India
International Opportunity Grant, Spring 2023, $1700

COMP 110 Study Sessions
USD Enhanced Student-Faculty Interaction Fund, Spring 2023, $250

Uni Analytics: What, How, and Why Do Different Educational Stakeholders Use Learning Analytics in Higher Education?
Swiss National Science Foundation, June 2020-May 2024, 589,204 CHF
Co-PIs: Pierre Dillenbourg, Patrick Jermann, Roland Tormey, Francisco Pinto,
Partner: **Jennifer K. Olsen**

Awards and Honors

USD Outstanding Undergraduate Research Mentor Nominee, 2023

Mortar Board Faculty Award, University of San Diego, 2021

Computer-Supported Collaborative Learning Best Design Paper Award from the International Society of the Learning Sciences Annual Meeting, 2021

School of Computer and Communication Sciences Teaching Award, EPFL, 2018 & 2019

Best Paper Award from European Conference of Technology Enhanced Learning, 2018

Siebel Scholar Class of 2017, Sept. 2016-Aug. 2017

Program in Interdisciplinary Educational Research (PIER) Fellowship, Aug. 2012-July 2016

Conference Travel Grant, AIED & EDM, National Science Foundation Grant, June 2015

Conference Travel Grant, CSCL, National Science Foundation Grant, June 2015

Graduate of Carnegie Mellon University with University and College Honors, May 2010

Refereed Journal Articles

1. Guneysu Ozgur, A., Wessel, M.J., **Olsen, J.K.**, Cadic-Melchior, A.G., Zufferey, V., Johal, W., Dominijanni, G., Turlan, J., Mhl, A., Bruno, B., Vuadens, P., Dillenbourg, P., & Hummel, F.C. (2022). The effect of gamified robot-enhanced training on motor performance in chronic stroke survivors. *Heliyon, 8*(11), 11764.

2. **Olsen, J.K.**, Guneysu Ozgur, A., Johal, W., & Sharma, K. (2022). Leveraging eye tracking to understand childrens attention during game-based, tangible robotics activities. *International Journal of Child-Computer Interaction, 31, 100447.*

3. **Olsen, J.K.**, Rummel, N., & Aleven, V. (2021). Designing for the co-orchestration of social transitions between individual, small-group and whole-class learning in the classroom. *International Journal of Artificial Intelligence in Education, 31,* 24-56.

4. Sharma, K., **Olsen, J.K.**, Aleven, V., & Rummel, N. (2021). Measuring causality between collaborative and individual gaze metrics for collaborative problem-solving with intelligent tutoring systems. *Journal of Computer Assisted Learning, 37,* 51-68.

5. Kim, K.G., Oertel, C., Dobricki, M., **Olsen, J.K.**, Coppi, A.E., Cattaneo, A., & Dillenbourg, P. (2020). Using immersive virtual reality to support designing skills in vocational education. *British Journal of Educational Technology, 51*(6), 2199-2213.

6. **Olsen, J.K.**, Faucon, L., & Dillenbourg, P. (2020). Transferring interactive activities in large lectures from face-to-face to online settings. *Information and Learning Sciences, 121*(7/8), 559-567.

7. **Olsen, J.K.**, Sharma, K., Rummel, N., & Aleven, V. (2020). Temporal analysis of multi-modal data to predict collaborative learning outcomes. *British Journal of Educational Technology,51*(5), 1527-1547.

8. Faucon, L., **Olsen, J.K.**, Haklev, S., & Dillenbourg, P. (2020). Real-time prediction of students activity progress and completion rates. *Journal of Learning Analytics, 7*(2), 18-44.

9. Ozgur, A. G., Wessel, M. J., **Olsen, J.K.**, Johal, W., Ozgur, A., Hummal, F. C., & Dillenbourg, P. (2020). Gamified Motor Training with Tangible Robots in Older Adults: a Feasibility Study and Comparison with Young. *Frontiers in Aging Neuroscience, 12*, 1-16.

10. Dillenbourg, P., Kim, K., Nasir, J., Yeo, S.T., & **Olsen, J.K.** (2019). Applying IDC theory to education in the Alps region: A response to Chan et al.'s contribution. *Research and Practice in Technology Enhanced Learning, 14*(17), 1-10.

11. **Olsen, J.K.**, Rummel, N., & Aleven, V. (2019). It is not either or: An initial investigation into combining collaborative and individual learning using an ITS. *International Journal of Computer-Supported Collaborative Learning, 14*, 353-381.

12. **Olsen, J.K.**, Aleven, V., & Rummel, N. (2017). Statistically modeling individual students learning over successive collaborative practice opportunities. *Journal of Educational Measurement, 54*(1), 123–138.

Journal Articles in Preparation

1. Sharma, K. & **Olsen, J.K.** (in preparation). What are you looking at? A systematic literature review of collaborative eye tracking literature in education.

Book Chapters

1. Aleven, V., Mavrikis, M., Mclaren, B., Nguyen, H.A., **Olsen, J.K.**, & Rummel, N. (2023). Six instructional approaches supported in AIED systems: What does AIED bring to the table? *Handbook of Artificial Intelligence in Education.*

2. Holstein, K.* & **Olsen, J.K.*** (2023). Orchestration and AIEd. *Handbook of Artificial Intelligence in Education* *First authorship is shared by the authors.

3. Dillenbourg, P., Prieto, L.P., & **Olsen, J.K.** (2018). Classroom orchestration. In F. Fischer, C. E. Hmelo-Silver, S.R. Goldman, & P. Reimann (Eds.), *International Handbook of the Learning Sciences* (pp. 180–190). Routledge.

4. **Olsen, J.K.**, Aleven, V., & Rummel, N. (2017). Exploring dual eye tracking as a tool to assess collaboration. In A. von Davier et al. (Eds.), *Innovative Assessment of Collaboration* (pp. 157-172). New York: Springer.

Refereed Full and Short Conference Papers

1. Sharma, K. & **Olsen, J.K.** (2022). What brings students together?: Investigating the causal relationship between joint mental effort and joint visual attention. In *Proceedings of Computer-Supported Collaborative Learning at the International Society of the Learning Sciences Annual Meeting 2022*. Hiroshima, Japan: ISLS.

2. Kothiyal, A. & **Olsen, J.K.** (2022). Identifying productive reflection in ill-structured problem solving. In *Proceedings of International Conference of the Learning Sciences at the International Society of the Learning Sciences Annual Meeting 2022*. Hiroshima, Japan: ISLS.

3. Sharma, K., **Olsen, J.K.**, Verma, H., Caballero, D.& Jermann, P. (2021). Challenging joint visual attention as a proxy for collaborative performance. In *Proceedings of Computer-Supported Collaborative Learning at the International Society of the Learning Sciences Annual Meeting 2021,* (pp. 91-98). Bochum, Germany: ISLS. ***Best design paper award.**

4. Shahmoradi, S., Kothiyal, A., **Olsen, J.K.**, Bruno, B., & Dillenbourg, P. (2020). The teacher and robot: What teachers need for orchestrating robotic classrooms. To Appear In *Proceedings of the 15th European Conference on Technology Enhanced Learning,* (pp. 87-101). Heidelberg, Germany: Springer.

5. Faucon, L., **Olsen, J.K.**, Dillenbourg, P. (2020). A Bayesian model of individual differences and flexibility in inductive reasoning for categorization of examples. In *Proceedings of the 10th International Conference on Learning Analytics and Knowledge,* (pp. 285-294). Frankfurt, Germany: ACM.

6. Sharma, K., Papamitsiou, Z., **Olsen, J.K.**, & Giannakos, M. (2020). Predicting learners' effortful behaviour in adaptive assessment using multimodal data. In *Proceedings of the 10th International Conference on Learning Analytics and Knowledge,* (pp. 480-489). Frankfurt, Germany: ACM.

7. Nasir, J., Norman, U., Johal, W., **Olsen, J.K.**, Shahmoradi, S., & Dillenbourg, P. (2019). Robot analytics: What do human-robot interaction traces tell us about learning? In the *Proceedings of the 28th IEEE International Conference on Robot and Human Interactive Communication,* (pp. 1-7). New Delhi, India: IEEE.

8. Oertel, C., Coppi, A., **Olsen, J.K.**, Cattaneo, A., & Dillenbourg, P. (2019). On the use of gaze as a measure for performance in a visual exploration task. In *Proceedings of the 14th European Conference on Technology Enhanced Learning,* (pp. 386-395). Delft, The Netherlands: Springer.

9. Guneysu Ozgur, A., Wessel, M.J., Johal, W., Asselborn, T., **Olsen, J.K.**, Ozgur, A., Hummel, F.C., & Dillenbourg, P. (2019). Designing configurable arm rehabilitation games: How do different game elements affect user motion trajectories?. To Appear In *Proceedings of the 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society,* (pp. 5326-5330). Berlin, Germany: IEEE.

10. Sharma, K. & **Olsen, J.K.** (2019). An alternate statistical lens to look at collaboration data: Extreme value theory. In K. Lund, G. Niccolai, E. Lavoue, C. Hmelo-Silver G. Gweon, & M. Baker (Eds), *Proceedings of the 13th International Conference on Computer Supported Collaborative Learning*, (pp. 400–407). Lyon, France: ISLS.

11. **Olsen, J.K.** & Fox, A. (2019). Student usage of hints on coding-based summative assessments. In *The Proceedings of the 50th ACM Technical Symposium on Computer Science Education,* (pp. 839-844), Minneapolis, MN: AMC.

12. Sharma, K., **Olsen, J.K.**, Aleven, V., & Rummel, N. (2018). Exploring causality within collaborative problem solving using eye-tracking. In V. Dimitrova, S. Praharaj, M. Fominykh, & H. Drachsler (Eds.), *Proceedings of the 13th European Conference on Technology Enhanced Learning* (pp. 412–426). Leeds, UK: Springer. ***Best paper award.**

13. **Olsen, J.K.**, Sharma, K., Aleven, V., & Rummel, N. (2018). Combining gaze, dialogue, and action from a collaborative intelligent tutoring system to inform student learning processes. In J. Kay & R. Luckin, R. (Eds.), *Proceedings of the 13th International Conference of the Learning Sciences*, (pp. 689–696). London, UK: ISLS.

14. **Olsen, J.K.** & Finkelstein, S. (2017). Through the (thin-slice) looking glass: An initial look at rapport and co-construction within peer collaboration. In B.K. Smith, M. Borge, E. Mercier, & K.Y. Lim (Eds), *Proceedings of the 12th International Conference on Computer Supported Collaborative Learning*, (pp. 511–518). Philadelphia, PA: ISLS.

15. **Olsen, J.K.**, Rummel, N., & Aleven, V. (2017). Learning alone or together? A combination can be best! In B.K. Smith, M. Borge, E. Mercier, & K.Y. Lim (Eds), *Proceedings of the 12th International Conference on Computer Supported Collaborative Learning*, (pp. 95-102). Philadelphia, PA: ISLS.

16. Hartmann, C., **Olsen, J.K.**, Brand, C., Rummel, N., & Aleven, V. (2017). Examining positive and negative interdependence in an elementary school CSCL setting. In B.K. Smith, M. Borge, E. Mercier, & K.Y. Lim (Eds), *Proceedings of the 12th International Conference on Computer Supported Collaborative Learning*, (pp. 633-636). Philadelphia, PA: ISLS.

17. **Olsen, J. K.**, Rummel, N., & Aleven, V. (2016). Investigating effects of embedding collaboration in an intelligent tutoring system for elementary school students. In C. K. Looi, J. L. Polman, U. Cress, & P. Reimann (Eds.), *Proceedings of the 12th International Conference of the Learning Sciences*, (pp. 338-345). Singapore: ISLS.

18. Gerritsen, D.B.*, **Olsen, J.K.***, Tasse, D.*, Vlahovic, T.A.*, Gulotta, R., Odom, W., Wiese, J., & Zimmerman, J. (2016). Mailing archived emails as postcards: Probing the value of virtual collections. In the *Proceedings of the 34th International Conference on Human Factors in Computing Systems (CHI)*, (pp. 1187-1199). ACM. *Equal contributions to this paper.

19. **Olsen, J.K.**, Aleven, V., & Rummel, N. (2015). Predicting student performance in a collaborative learning environment. In O. C. Santos et al. (Eds.), *Proceedings of the 8th International Conference on Educational Data Mining*, (p. 211-217). Worcester, MA: Educational Data Mining Society.

20. Wiese, E., Patel, R., **Olsen, J.K.**, & Koedinger, K. (2015). Transitivity is not obvious: Probing prerequisites of learning. In D. C. Noelle, R. Dale, A. S. Warlaumont, J. Yoshimi, T. Matlock, C. D. Jennings, & P. P. Maglio (Eds.), Proceedings of the *37th Annual Conference of the Cognitive Science Society*, (pp. 2655-2660). Austin, TX: Cognitive Science Society.

21. Belenky, D.M., Ringenberg, M., **Olsen, J.K.**, Aleven, V., & Rummel, N. (2014). Using dual eye-tracking to evaluate students collaboration with an intelligent tutoring system for elementary-level fractions. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), Proceedings of the *36th Annual Conference of the Cognitive Science Society,* (pp. 176-181). Austin, TX: Cognitive Science Society.

22. **Olsen, J. K.**, Belenky, D. M., Aleven, A., & Rummel, N. (2014). Using an intelligent tutoring system to support collaborative as well as individual learning. In S. Trausan-Matu, K. E. Boyer, M. Crosby, & K. Panourgia (Eds), Proceedings of the *12th International Conference on Intelligent Tutoring Systems*, (pp. 134-143). Berlin, Heidelberg: Springer.

23. **Olsen, J. K.**, Belenky, D. M., Aleven, A., Rummel, N., Sewall, J., & Ringenberg, M. (2014). Authoring tools for collaborative intelligent tutoring system environments. In S. Trausan-Matu, K. E. Boyer, M. Crosby, & K. Panourgia (Eds), Proceedings of the *12th International Conference on Intelligent Tutoring Systems*, (pp. 523-528). Berlin, Heidelberg: Springer.

24. Mazurek, M., Arsenault, J.P., Bresee, J., Gupta, N., Ion, I., Johns, C., Lee, D., Liang, Y., **Olsen, J.**, Salmon, B., Shay, R., Vaniea, K., Bauer, L., Cranor, L.F., Ganger, G.R., & Reiter, M.K. (2010). Access control for home data sharing: Attitudes, needs and practices. In Proceedings of the *28th International Conference on Human Factors in Computing Systems*, (pp. 645-654). Atlanta, GA: ACM.

Refereed Conference Posters and Workshops

1. **Olsen, J.K.** & Jiang, S. (2022). Integrating student identity support in orchestration system. In *Proceedings of Computer-Supported Collaborative Learning at the International Society of the Learning Sciences Annual Meeting 2022.* Hiroshima, Japan: ISLS.

2. **Olsen, J.K.**, & Oertel, C. (2020). Supporting Empathy Training Through Virtual Patients To Appear In the *Proceedings of The 21th International Conference on Artificial Intelligence in Education,* (pp. 234-239). Ifrane, Morocco: Springer.

3. Shahmoradi, S., **Olsen, J.K.**, Haklev, S., Johal, W., Norman, U., Nasir, J., & Dillenbourg, P. (2019). Orchestration of robotic activities in classrooms: Challenges and opportunities. In *Proceedings of the 14th European Conference on Technology Enhanced Learning,* (pp. 640-644). Delft, The Netherlands: Springer.

4. Haklev, S., Faucon, L., **Olsen, J.K.**, & Dillenbourg, P. (2019). FROG, a tool to author and run orchestration graphs: Affordances and tensions. In K. Lund, G. Niccolai, E. Lavoue, C. Hmelo-Silver G. Gweon, & M.Baker (Eds), *Proceedings of the 13th International Conference on Computer-Supported Collaborative Learning*, (pp. 1013–1016). Lyon, France: ISLS.

5. **Olsen, J.K.**, Rummel, N., & Aleven, V. (2018). Co-designing orchestration support for social plane transitions with teachers: Balancing automation and teacher autonomy. In J. Kay & R. Luckin, R. (Eds.), *Proceedings of the 13th International Conference of the Learning Sciences*, (pp. 1541–1542). London, UK: International Society of the Learning Sciences.

6. Pace, A., Baligand, L., Haklev, S., **Olsen, J.K.**, de Grez, N., & De Wever, B. (2018). Quantifying collaboration in synchronous document editing. In *Proceedings of the 3rd Swiss Text Analytics Conference (Swiss-Text 2018).*

7. Hartmann, C., **Olsen, J.K.**, Rummel, N., & Aleven, V. (2016). Comparing two approaches to analyzing collaborative process data from learning with an ITS. In *Proceedings of the 5th Workshop on Intelligent Support for Learning in Groups at the 13th International Conference on Intelligent Tutoring Systems.*

8. **Olsen, J.K.**, Aleven, V., & Rummel, N. (2016). Enhancing student modeling for collaborative intelligent tutoring systems. In C. K. Looi, J. Polman, U. Cress, & P. Reimann (Eds.), *Proceedings of the 13th International Conference on Intelligent Tutoring Systems*, (pp. 485–489). Zagreb, Croatia.

9. **Olsen, J.K.**, Ringenberg, M., Aleven, V., & Rummel, N. (2015). Dual eye tracking as a tool to assess collaboration. In *Proceedings of the 4th Workshop on Intelligent Support for Learning in Groups at the 17th International Conference on Artificial Intelligence in Education*, (pp. 25–30). Madrid, Spain.

10. **Olsen, J.K.**, Aleven, V., & Rummel, N. (2015). Toward combining individual and collaborative learning within an intelligent tutoring system. In C. Conati, N. Heffernan, A. Mitrovic, & M. F. Verdejo (Eds.), *Proceedings of the 17th international conference on AI in education*, (pp. 848–851). New York: Springer International Publishing.

11. **Olsen, J.K.**, Aleven, V., & Rummel, N. (2015). Adapting collaboration dialogue in response to intelligent tutoring system feedback. In C. Conati, N. Heffernan, A. Mitrovic, & M. F. Verdejo (Eds.), *Proceedings of the 17th international conference on AI in education*, (pp. 748–751). New York: Springer International Publishing.

12. **Olsen, J.K.**, Rummel, N., & Aleven, V. (2015). Finding productive talk around errors in intelligent tutoring systems. In O. Lindwall et al. (Eds.), *Proceedings of the 11th International Conference on Computer Supported Collaborative Learning*, (pp. 821–822). Gothenberg, Sweden.

13. **Olsen, J.K.**, Belenky, D.M., Aleven, V., & Rummel, N. (2014). Collaboration on procedural problems may support conceptual knowledge more than you may think. In *Proceedings of the 3rd Workshop on Intelligent Support for Learning in Groups at the 12th International Conference on Intelligent Tutoring Systems.*

14. **Olsen, J.K.**, Belenky, D.M., Aleven, V., Rummel, N., Sewall, J., & Ringenberg, M. (2013). Authoring collaborative intelligent tutoring systems. In R. Kumar & J. Kim (Eds.), *Proceedings of the 2nd Workshop on Intelligent Support for Learning in Groups at the 16th International Conference on Artificial Intelligence in Education*, (pp. 1-10). Memphis, TN.

15. **Olsen, J.K.**, Belenky, D.M., Aleven, V., & Rummel, N. (2013). Intelligent tutoring systems for collaborative learning: Enhancements to authoring tools. In the *Proceedings of the 16th International Conference on Artificial Intelligence in Education*, (pp. 900–903). Memphis, TN: Springer.

16. Belenky, D.M., Ringenberg, M., **Olsen, J.K.**, Aleven, V., & Rummel, N. (2013). Using Dual Eye-Tracking Measures to Differentiate Between Collaboration on Procedural and Conceptual Learning Activities. In *Proceedings of the workshop DUET 2013: Dual Eye Tracking in CSCL at the 10th International Conference on Computer Supported Collaborative Learning.* Madison, WI.

Conference Presentations

1. **Olsen, J.K.**, Haklev, S., Faucon, L., & Dillenbourg, P. (August, 2019). Orchestrating active learning in large lectures. Symposium Paper Presented at *the 2019 EARLI Meeting*. Aachen, Germany.

2. Oertel, C., Kim, K., **Olsen, J.K.**, & Dillenbourg, P. (August, 2019). Expanding apprentices experiences in the digital world. Symposium Paper Presented at *the 2019 EARLI Meeting*. Aachen, Germany.

3. **Olsen, J.K.** (June, 2015). Using complimentary strengths of individual and collaborative learning within an intelligent tutoring system. Presented at *the Doctoral Consortium in conjunction with the 11th International Conference on Computer Supported Collaborative Learning*, (pp. 951–952). Gothenberg, Sweden.

4. **Olsen, J.K.**, Mazziotti, C., Aleven, V., & Rummel, N. (August, 2014). Assessing collaboration dialogues of students using an intelligent tutoring system for fractions. Symposium Paper Presented at *the 2015 EARLI Meeting*. Limassol, Cyprus.

5. Belenky, D.M., Ringenberg, M., **Olsen, J.K.**, Aleven, V., & Rummel, N. (August, 2014). Integrating dual eye-tracking and Intelligent Tutoring System Logs: A novel method to study collaboration. Presented at *the 2014 EARLI SIG 6 (Instructional Design) & 7 (Learning and Instruction) Meeting*. Rotterdam, The Netherlands.

6. **Olsen, J.K.**, Belenky, D.M., Aleven, V., & Rummel, N. (October, 2014). The use of collaborative technology with elementary school students. Poster presented at *Grace Hopper Celebration*. Phoenix, AZ.

7. Booth, J.L. & **Olsen, J.K.** (April, 2009). Encoding of equation features relates to conceptual and procedural knowledge of algebra. Poster presented at *the meeting of the Society for Research in Child Development*. Denver, CO.

Invited Talks

Invited Speaker, July 2023
    IIT Gandhinagar, India
    Developing Adaptive Support for Collaborative Learning Through the Use of Learning Analytics

Keynote Speaker, April 2023
    Ethical Decisions in Technological Societies, University of San Diego
    Developing Educational Technology Using Ethical AI and Data Practices

Keynote Expert Speaker, October 2022
    Personalized Adventures in Learning Ideation Workshop, University of Massachusetts Amherst
    AI for Orchestration in the Classroom

Invited Speaker, July 2022
    LASER Institute Summer Workshop, North Carolina State University
    Collaborative Multimodal Analytics Across Spaces

Keynote Speaker, June 2022

  Reimagining and redesigning digital learning and teaching in the post-pandemic world, ForBiLD International Kick-Off-Symposium, University of Duisburg-Essen
  Supporting Flexibility in Post-Pandemic Higher Education

Invited Speaker, February 2022

  Monthly Learning Seminar, Classkick
  Designing Computer-Supported Collaborative Learning for a Classroom Setting

Invited Speaker, October 2019

  Methods and Research (M&R) Meeting, UNIL, Lausanne, Switzerland
  Using Diverse Statistical Lenses to Provide Insights into Collaborative Learning Processes

Invited Speaker, February 2017

  CHILI Lab, EPFL, Lausanne, Switzerland
  Supporting Collaborative and Individual Learning in the Classroom

Invited Speaker, June 2015

  Institute of Educational Research, Ruhr-Universitat Bochum, Bochum, Germany
  Predicting Student Performance in a Collaborative Learning Environment

Supervised Students

Ashley Xu (Undergraduate Research Assistant, USD), June 2023-August 2023

Connor Boll (Undergraduate Research Assistant, USD), June 2023-August 2023

Jahiah Sempieri (Summer Undergraduate Research Experience, USD), June 2023-August 2023

Jenny Demello (Rising STEM Scholars Development Program, USD), June 2023-August 2023

Christian Gideon (Undergraduate Honors Thesis, USD), September 2022-May 2023
  Thesis: Creating a Speech Learning Dashboard for Guardians of Children with Autism

Michelle Aguilar (Pre-Undergraduate Research Experience, USD), June 2022-August 2022

Diana Percy (Undergraduate Honors Thesis, USD), January 2022-May 2022
  Thesis: Exhibit: A Multimedia Digital Scrapbook App

Diana Percy (Undergraduate Independent Study, USD), January 2021-May 2021

Tanya Keval (Undergraduate Honors Thesis, USD), August 2020-May 2021
  Thesis: Grandparent-Grandchild Virtual Communication Study

Jules Courtois (PhD Student, EPFL), June 2020-July 2020

Kevin Kappel (Masters Student, EPFL), September 2019-April 2020
  Thesis: How Micro-assessments Can Improve Learning Rates

Jiaxi Gu (Masters Student, EPFL), February 2018-June 2018
  Thesis: Dynamically Predict Students' Progress and Completion Time in Class

Louis Faucon (PhD Student, EPFL), September 2017-July 2020
  Thesis: Learning Analytics for Adaptive and Self-Improving Learning Environments for Inductive Teaching

Teaching Experience

Object-Oriented Programming and Design (COMP 305), Spring 2023
  Revised Course
  Undergraduate level
  Department of Computer Science, USD, San Diego, CA

Human-centered Systems (COMP 332), Spring 2022
  Developed Course
  Undergraduate level
  Department of Computer Science, USD, San Diego, CA

Human-centered Data Science (COMP 333), Fall 2021, Spring 2023
  Developed Course
  Undergraduate level
  Department of Computer Science, USD, San Diego, CA

Computational Problem-solving (COMP 110), Fall 2020-Spring 2023
  Undergraduate level
  Department of Computer Science, USD, San Diego, CA

Introduction to User-centered Design and Prototyping (COMP 494), Fall 2020
  Developed Course
  Undergraduate level
  Department of Computer Science, USD, San Diego, CA

Instructional Design with Orchestration Graphs, November 2019
  MOOC
  Open edX

Teaching Assistant in Digital Education & Learning Analytics, Falls 2017-2019
  Graduate level
  EPFL, Lausanne, Switzerland

Instructor at EPFL Digital Learning Sciences Winter School, February 2019
  Developed and Instructor for Backwards Design Hands-on Session
  Developed and Instructor for Student Modelling and BKT Hands-on Session
  Graduate level
  EPFL, Lausanne, Switzerland

Teaching Assistant in Programming Usable Interfaces, Fall 2015
  Undergraduate and graduate level
  HCII, CMU, Pittsburgh, PA

Classroom Observer, January 2015-May 2015
  3rd - 5th grade classrooms
  Propel Braddock Hills Elementary School

Teaching Assistant in User Centered Research and Evaluation, Fall 2014
  Undergraduate and graduate level
  HCII, CMU, Pittsburgh, PA

Mentor at the LearnLab summer school in the CTAT and Example-tracing Tutors track, Summers 2014-2016
  Undergraduate and graduate level
  LearnLab, CMU, Pittsburgh, PA, USA

Professional Experience

Developer, July 2010-June 2012
  The Vanguard Group, Malvern, Pennsylvania
  Produce and develop design solutions for the pension administrative system.

Information Architect Internship, May 2009-August 2009
  Verizon, Irving, Texas
  Design and develop wireframes for internal sites based on client needs.

Department Service

Faculty Search Committee Member, September 2022-present

Academic Advisor for Computer Science Majors, September 2020-present

Senior Project Acting Client, September 2021-May 2022

Development of the Human-Computer Interaction concentration within the Computer Science major, January 2021

Co-Ombudsman, PhD Student Representative, July 2014-June 2016

Curriculum Committee Student Representative, October 2012-May 2013

Shiley Marcos School of Engineering Service

Designing for Humanity Committee Member, Oct. 2021-present

University Service

OUR Faculty Advisory Board Engineering, Math, & Computer Science Representative, March 2023-present

IRB Committee SMSE Representative, September 2022-present

Research Council SMSE Representative, September 2021-present

AnchorSTEM Mentor, July 2021-present

Co-development of the Cognitive Science minor, starting September 2023

SURE Application reviewer, 2023

PURE Application reviewer, 2022

PIER Edbag Coordinator, July 2014-July 2015

PIER Summer Stats Course Organizer, Summer 2014

Professional Service

ISLS Communications Committee Co-chair, September 2022-present

ISLS Communications Committee Member, June 2019-present

NSF Panel Reviewer, 2023

ISLS Annual Meeting Social Media Co-Chair, 2023 Conference

ISLS Annual Meeting Communications Co-Chair, 2021 Conference

Co-Organizer for Robots for Learning workshop at HRI, March 2021

Co-Organizer for EPFL Digital Learning Sciences Winter School, Feb. 2019

Co-Organizer for AI and Learning Analytics Track at the 2019 Applied Machine Learning Days, January 2019

Co-Organizer for reThinking Intelligent Support for Learning in Groups at ISLS, June 2018

Co-Organizer for Organizing and Analysing Computer-Supported Collaborative Writing at ISLS, June 2018

Co-Organizer for the 5th Workshop on Intelligent Support for Learning in Groups at ITS, June 2016

Student Volunteer, Educational Data Mining, June 2015

Reviewer: International Conference on Human Factors in Computing Systems (CHI), International Conference on the Learning Sciences (ICLS), International Conference on Computer Supported Collaborative Learning (CSCL), International Conference on Cognitive Science, International Conference on Artificial Intelligence in Education (AIED), Interaction Design and Children Conference, European Conference of Technology Enhanced Learning (EC-TEL), International Conference on Computers in Education (ICCE), Journal of Educational Measurement, User Modeling and User-Adapted Interaction, British Journal of Educational Technology, Instructional Science, International Journal on Artificial Intelligence in Education, Computers & Education, International Conference on Advanced Learning Technologies (ICALT), Group Interaction Frontiers in Technology Workshop, 2018, Workshop on Intelligent Support for Learning in Groups, 2015

Volunteer Experience

Category Judge for the Pittsburgh Regional Science & Engineering Fair, 2015-2017

Big Brothers Big Sisters Community Big, November 2012-March 2017

Carnegie Mellon Women@SCS PhD Sisters Mentor, September 2015-May 2016

Carnegie Mellon Women@SCS Sisters Mentor, November 2012-May 2014