

GAYITHRI JAYATHIRTA

University of Illinois | College of Education
1310 S 6th St, Champaign, IL 61820
gayithri@illinois.edu | gayithri.info

EDUCATION

2017 – 2022	University of Pennsylvania Ph.D. in Education Concentration: Learning Sciences and Technologies Thesis title: Glass-boxing computing with electronic textiles Committee Members: Yasmin Kafai (chair), Mark Guzdial, Susan Yoon, Deborah Fields	Philadelphia, PA, USA
2015 – 2016	University of Pennsylvania M.S.Ed. in Learning Sciences and Technologies Advisor: Dr. Janine Remillard	Philadelphia, PA, USA
2005 – 2009	University Visvesvaraya College of Engineering B.E. in Computer Science Engineering	Bangalore, KA, India

RESEARCH & PROFESSIONAL EXPERIENCE

2024 - present	University of Illinois, Urbana-Champaign <i>Assistant Professor in Computer Science Education</i>	Champaign, USA
2022 - 2024	University of Oregon <i>Computing Innovation Postdoctoral Fellow</i> Leading the implementation and analysis of re- and co-design of introductory curricular materials with high school teachers.	Eugene, USA
2017 – 2022	University of Pennsylvania <i>Research Assistant</i> Co-led data analysis across NSF-funded projects concerning K–12 computer science education.	Philadelphia, USA
2015 & 2016	<u>Consortium for Policy Research in Education</u> <i>Research Assistant</i> Contributed to the analyses of student responses and teacher practices in middle school mathematics classrooms.	Philadelphia, USA
2015 & 2016	<u>Franklin Institute</u> <i>Research Assistant</i> Contributed to tool development, data collection and analysis for exhibit prototyping and development.	Philadelphia, USA
2017 & 2020	<u>Steppingstone Scholars</u> <i>Teacher</i> Taught robotics and electronic textile courses to middle and high school	Philadelphia, USA

students.

2009 – 2015	PRIMES Math Lab <i>Co-founder & Teacher</i> Led the development and implementation of an after-school math program for elementary, middle, and high school students.	Bangalore, India
2012 – 2015	<u>Prajayatna</u> <i>Math Resource Person</i> Led teacher professional development programs for high school math teachers across three rural districts of Karnataka state.	Bangalore, India
2012	<u>Akshara Foundation</u> <i>Content Developer</i> Designed and developed curricular materials to build basic math skills in school children of age 6-9 years within the in-school learning team.	Bangalore, India

GRANT ACTIVITIES PARTICIPATED IN

Jayathirtha, G. *Researching Equity, Access, & Learning in Computer Science Education (REAL-CS)*. Spencer Rapid Response Bridge Fund. Spencer Foundation, 2025.

- Led grant-writing;
- Will lead co-analysis of curricular materials with teachers and co-authoring of a journal article reporting the Findings;
- Will lead the co-design of a refresher teacher professional development (PD) session for experienced ECS teachers to adopt the revised ECS program.

Goode, J., Ong, C., & **Jayathirtha, G.** *Researching Equity, Access, & Learning in Computer Science Education (REAL-CS)*. [Computer Science for all program](#). National Science Foundation #2127309, 2024.

- Led grant-writing;
- Currently studying teacher learning within teacher PDs based on the latest version of the *Exploring Computer Science* (ECS) program.

Jayathirtha, G. & Goode, J. *Designing for Teacher Preparation at the Intersection of Social Justice and Computing*. [Computing Innovations Fellowship 2021](#). National Science Foundation #2127309, 2021.

- Led grant-writing;
- Led design, implementation, and research around co-designing with high school computing teachers within the *Exploring Computer Science* (ECS) program.

Uttamchandani, S., Kumar, V., **Jayathirtha, G.**, & Dutta, D. *Soch: Expanding Indian and Indian Diasporic Ways of Thinking in the Learning Sciences*. ISLS Regional and Affinity Outreach Project Grants, 2020.

- Co-led grant-writing, project design, research instrument development, and implementation involving 15+ interviews of scholars who have explored learning and education as it intersects with the social, cultural, and historical dimensions of Indian and Indian Diasporic lives.

Huff, E. W., Castro, F., **Jayathirtha, G.**, Jimenez, Y., Kong, M., Melo, N. A., ... & Tsan, J.¹ [Telling Our Narratives: Expanding Equity Within Computing Education](#). SIGCSE Special Projects Grant, 2021.

¹All organizers contributed equally

- Collaboratively designed the project in May 2021; actively supported the design and research around the workshops in Summer & Fall 2022; interviewed scholars at the margins within computing education to understand equitable engagement.

Hook, J., Goode, J. & Hubbard, J. [*CS for Oregon*](#). National Science Foundation #2122673, 2021.

- Led data collection and analysis during Summer and Fall 2022 to capture experienced teachers' backgrounds and their connections to computing within classrooms and communities.

Goode, J. [*BPC-AE Collaborative Research: Researching Equity and Accessible Learning in CS \(REAL-CS\)*](#). National Science Foundation #2137975, 2022.

- Led the study design involving research instruments and session designs to co-design and revise ECS curricular and teacher professional development materials to integrate recent conversations and concerns around Artificial Intelligence.

Kafai, Y., Goode, J., & Peterson, K. [*E-Facilitation Partnerships: Developing Scalable Online Professional Development for Expanding CS Teacher Expertise in Equity and Pedagogy with e-Textiles*](#). National Science Foundation #2021168, 2020.

- Co-led the data collection efforts during Fall 2021 implementation of an e-textiles online professional development with ten experienced computer science teachers.
- Led qualitative data analysis to understand teachers' engagement during the professional development session at the intersection of technical and social aspects of computing.

Kafai, Y. & Gross, M. [*Debugging by Design: Developing a Tool Set for Debugging with Electronic Textiles to Promote Computational and Engineering Thinking in High School*](#). National Science Foundation #1742140, 2017.

- Collaboratively piloted and designed the curricular lesson that engages student groups to jointly design, create, and debug buggy e-textiles projects.
- Co-designed data collection and analysis plans to examine novice debugging strategies, practices, and perspectives with physical computing such as e-textiles.
- Led Institutional Review Board (IRB) communications including filing modifications to revise data collection instruments, add research personnel, etc.

Kafai, Y., Goode, J., & Margolis, J. [*ET-ECS: Electronic Textiles for Exploring Computer Science with High School Students & Teachers to Promote Computational Thinking and Participation*](#). National Science Foundation #1509245, 2015.

- Jointly designed and implemented an analysis plan to study student learning with e-textiles within three Exploring Computer Science high school classrooms.

Kafai, Y. [*MADE \(Music ArtDesign with E-textiles\)*](#). Google of CS Education Grant, 2018.

- Co-designed a semester-long unit on integrating art and computing within high school classrooms.
- Led implementation and data collection during the pilot study conducted in a summer camp at a local museum and later in one of two partner classrooms.
- Led Institutional Review Board (IRB) communications including filing modifications to revise data collection instruments, add research sites and personnel, etc.

JOURNAL ARTICLES²

² Articles under review or in preparation have not been included to conserve anonymity during the peer review process.

-
- Jayathirtha, G.,** Chapman, G., & Goode, J. (2024). Questioning the Why and the How: Collective transformative agency of experienced teachers co-designing a justice-oriented high school introductory computing program. *Journal of Research on Technology in Education*, 1-26. <https://doi.org/10.1080/15391523.2024.2399278>.
- Jayathirtha, G.,** Fields, D., & Kafai, Y. (2024) Distributed debugging with electronic textiles: understanding high school student pairs' problem-solving strategies, practices, and perspectives on repairing physical computing projects, *Computer Science Education*, DOI: <https://doi.org/10.1080/08993408.2023.2297738>.
- Jayathirtha, G.** & Castro, F.E.V. (2023). "My time to be proud of my race and express who I am:" Disaggregating Asian identities through case studies of high school students in electronic textiles classrooms. *Sustainability* 2023, 15, 15128. <https://doi.org/10.3390/su152015128>.
- Jayathirtha, G.** & Kafai, Y. (2020). Interactive Stitch Sampler: A Synthesis of a Decade of Research on Using Electronic Textiles to Answer the Who, Where, How, and What for K-12 Computer Science Education. In *Transactions on Computing Education (TOCE)*, 28, 1-29. <https://doi.org/10.1145/3418299>.
- Jayathirtha, G.,** Fields, D., Kafai, Y.B., & Chipps, J. (2020). Supporting making online: the role of artifact, teacher and peer interactions in crafting electronic textiles, *Information and Learning Sciences*, Vol. 121 No. 5/6, 381-390. <https://doi.org/10.1108/ILS-04-2020-0111>.
- Fields, D. A., Lui, D., Kafai, Y. B., **Jayathirtha, G.,** Walker, J. T., & Shaw, M. (2021). Communicating about computational thinking: Understanding affordances of portfolios for assessing high school students' computational thinking and participation practices. *Computer Science Education*, 3(2), 224-258. <https://doi.org/10.1080/08993408.2020.1866933>.
- Lui, D., Walker, J. T., Hanna, S., Kafai, Y. B., Fields, D., & **Jayathirtha, G.** (2019). Communicating computational concepts and practices within high school students' portfolios of making electronic textiles. *Interactive Learning Environments*, 1-18. <https://doi.org/10.1080/10494820.2019.1612446>.
- Jayathirtha, G.** (2018). An Analysis of the National Intended Geometry Curriculum. *Contemporary Education Dialogue*, 15(2), 143-163. <https://doi.org/10.1177/0973184918783291>.

PEER-REVIEWED CONFERENCE PAPERS

- *Jayathirtha, G.,** Goode, J., Chapman, G., Jones, K., Elmeligui, T., Taylor, M., Ottina, J., & Crocker, T. (2025). The What and How of Becoming "Co-Conspirators of Social Justice" in Computing Education: Perspectives From and For High School Computing Teachers. In *Proceedings of the 19th International Conference of the Learning Sciences-ICLS 2025*, pp. 511-519. International Society of the Learning Sciences.
- Jayathirtha, G.,** Chapman, G., & Goode, J. (2024). Holding a Safe Space with Mutual Respect and Politicized Trust: Essentials to co- designing a justice-oriented high school curricular program with teachers. In *Proceedings of the 2024 RESPECT Annual Conference (RESPECT 2024)*, May 16–17, 2024, Atlanta, GA, USA. ACM, New York, NY, USA, 9 pages. <https://doi.org/10.1145/3653666.3656090>.

- Jayathirtha, G.**, Chapman, G., & Goode, J. (2023). "Social media is...sort of our East India Trading Company." High School Computing Teachers Engaging at the Intersection of Colonialism and Computing. In *Proceedings of the ACM Conference on Global Computing Education Vol 1 (CompEd 2023)*, December 5–9, 2023, Hyderabad, India. ACM, New York, NY, USA, 7 pages. <https://doi.org/10.1145/3576882.3617926>.
- Jayathirtha, G.**, Goode, J., & Skorodinsky, M. (2023). "I am coming from the same situation:" Connections between teacher identities and social justice within secondary computing education. In the *Proceedings of the Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT) conference 2023*, Georgia, USA.
- Jayathirtha, G.**, Fields, D., Kafai, Y., Chapman, G., Goode, J., & Shaw, M. (2023). Weaving the Societal and the Technical into Teacher Experiences: Experienced computing high school teacher learning in an electronic textiles professional development session. In the *Proceedings of the International Society of the Learning Sciences (ISLS) Annual Meeting 2023*, Vol. 2, 345-352. <https://2023.isls.org/proceedings/>.
- Jayathirtha, G.** (2022). "How does the computer carry out digitalRead()?:" Notional Machines Mediated Learner Conceptual Agency within an Introductory High School Electronic Textiles Unit. Proceedings of the 2022 ACM Conference on International Computing Education Research V.1 (ICER 2022), August 7–11, 2022, Lugano and Virtual Event, Switzerland. ACM, New York, NY, USA, 17 pages. <https://doi.org/10.1145/3501385.3543964>.
- Jayathirtha, G.** (2022). Video Analysis of a Teacher's Use of Notional Machines in an Introductory High School Electronic Textile Unit: A three- tier framework to capture notional machines in practice. Proceedings of the 17th Workshop in Primary and Secondary Computing Education (WiPSCE '22), October 31-November 2, 2022, Morschach, Switzerland. ACM, New York, NY, USA, 10 pages. <https://doi.org/10.1145/3556787.3556798>.
- Jayathirtha, G.** (2022). Shifts in High School Students' Conceptions of Sensor-based Devices and Toys. In the *Proceedings of the International Society of the Learning Sciences (ISLS) Annual Meeting 2022*, 1209-1212, https://repository.isls.org/bitstream/1/8447/1/ICLS2022_1209-1212.pdf.
- Dutta, D., **Jayathirtha, G.**, Kumar, V., & Uttamchandani, S. (2022). Soch: Expanding Indian and Indian diasporic ways of thinking in the learning sciences. In symposium in J. Oshima, T. Mochizuki, & Y. Hayashi (Eds.), General Proceedings of the 2nd Annual Meeting of the International Society of the Learning Sciences, 9-16. International Society of the Learning Sciences.
- Jayathirtha, G.** & Kafai, Y. (2021). Program Comprehension with Physical Computing: A Structure, Function, and Behavior Analysis of Think-Alouds with High School Students. In *Proceedings of the 26th ACM Conference on Innovation and Technology in Computer Science Education V. 1*, 143-149. . <https://doi.org/10.1145/3430665.3456371>.
- Jayathirtha, G.** & Kafai, Y. (2021). The Invisibility Issue: High School Students' Informal Conceptions of Everyday Physical Computing Systems. In the *Proceedings of the International Society of the Learning Sciences (ISLS) Annual Meeting 2021*, 741 - 745.
- Kafai, Y., **Jayathirtha, G.**, Shaw, M., & Morales-Navarro, L. (2021). CodeQuilt: Designing an Hour of Code

Activity for Creative and Critical Engagement with Computing. In *Interaction Design and Children* (IDC '21), June 24–30, 2021, Athens, Greece. ACM, New York, NY, USA, 7 pages. <https://doi.org/10.1145/3459990.3465187>.

Morales-Navarro, L., Kafai, Y., **Jayathirtha, G.**, & Shaw, M. (2021). Investigating Creative and Critical Engagement with Computing in the Hour of Code. In the *Proceedings of 16th Workshop in Primary and Secondary Computing Education (WiPSCE)*, October 18–20, 2021, Virtual Event, Germany. ACM, 6 pages. <https://doi.org/10.1145/3481312.3481314>.

Jayathirtha, G., Fields, D., & Kafai, Y. (2020). Pair Debugging of Electronic Textiles Projects: Analyzing Think-Aloud Protocols for High School Students' Strategies and Practices while Problem Solving. In M. Gresalfi, M. & I. S. Horn (Eds.). *The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 2*, Nashville, TN: International Society of the Learning Sciences, 1047-1054.

Jayathirtha, G., Shaw, M., Kafai, Y., & Lui, D. (2020). When a Glove Becomes a Gun: From Personally Meaningful to Socially Critical Restorying in Maker Activities. *FabLearn'20*, October 10-11, 2020, 4 pages. <https://doi.org/10.1145/3386201.3386205>.

Fields, D., Lin, Y., **Jayathirtha, G.**, & Kafai, Y. (2020). A Redesigned Reconstruction Kit for Rapid Collaborative Debugging and Designing of E-Textiles. *FabLearn'20*, October 10-11, 2020, 4 pages. <https://doi.org/10.1145/3386201.3386207>.

Fields, D., **Jayathirtha, G.**, & Kafai, Y. (2019). Bugs as a Nexus for Emergent Peer Collaborations: Contextual and Classroom Supports for Solving Problems in Electronic Textiles. *Computer Supported Collaborative Learning (CSCW'19)*, 472 - 479.

Jayathirtha, G. & Kafai, Y. (2019). Electronic textiles in computer science education: a synthesis of efforts to broaden participation, increase interest, and deepen learning. *50th ACM Technical Symposium on Computer Science Education (SIGCSE'19)*, ACM Press, 713-719. <https://doi.org/10.1145/3287324.3287343>.

Kafai, Y., Fields, D. A., Lui, D. A., Walker, J. T., Shaw, M. S., **Jayathirtha, G.**, ... & Giang, M. T. (2019). Stitching the Loop with Electronic Textiles: Promoting Equity in High School Students' Competencies and Perceptions of Computer Science. *50th ACM Technical Symposium on Computer Science Education (SIGCSE'19)*, ACM Press, 1176-1182. <https://doi.org/10.1145/3287324.3287426>.

Jayathirtha, G., Fields, D., & Kafai, Y. (2018). Computational concepts, practices, and collaboration in high school students' debugging electronic textile projects. *International Conference on Computational Thinking Education (CTE'18)*. Hong Kong, China.

Lui, D., **Jayathirtha, G.**, Fields, D., Shaw, M., & Kafai, Y. (2018). Design considerations for capturing computational thinking practices in high school students' electronic textile portfolios. *International Conference of the Learning Sciences (ICLS'18)*, 721 - 728.

Lui, D., Anderson, E., Kafai, Y., & **Jayathirtha, G.** (2017). Learning by Fixing and Designing Problems: A Reconstruction Kit for Debugging E-Textiles. *FabLearn'17*, October 21-22, 2017, 8 pages. <https://doi.org/10.1145/3141798.314180>.

* Nominated for Best Paper and Best Design Paper, ISLS 2025.

MAGAZINE ARTICLES & BOOK CHAPTERS

Jayathirtha, G., Goode, J., Chapman, G., & Shaw, M. S. (2025). Teachers as Leaders of Justice-Oriented Computing Education. *ACM Inroads*, 16(2), 52-59.

Kafai, Y. & **Jayathirtha, G.** (2020). Hi-Lo Tech Crafting: Tinkering with Textiles, Paper, and Everything Else. In Holbert, N., Berland, M. & Kafai, Y. (Eds.), *Designing Constructionist Futures*. MIT Press.

Other Selected Talks, Presentations, Posters, and Demos

Dabholkar, S., Kothiyal, A., Nandakumar, M., Karumbaiah, S., **Jayathirtha, G.,** & Kumar, V. (2024). Learning Sciences Perspectives about Using and Evaluating Technology in Education. A EdTech Society Panel, IIT-Bombay, India, May 31, 2024.

Jayathirtha, G., Goode, J., & Chapman, G. (2023). Towards Anti-racist computing program: Co-design of Exploring Computer Science program with experienced high school teachers. Weintrop, Lin, & McKenna, Design Principles for Creating Accessible and Inclusive Introductory Computing Experiences Symposium, Annual Meeting of the *American Educational Research Association* 2023, April 16, 2023.

Jayathirtha, G., et al. (2023). Supporting the Integration of Social Justice topics within K-12 Computing Education. In Proceedings of the 54th ACM Technical Symposium on Computer Science Education (SIGCSE 2023), March 15–18, 2023, Toronto, Canada. ACM, New York, NY, USA, 1 page. <https://doi.org/10.1145/3545947.3569604>.

Jayathirtha, G., Lee, V., & Greenberg, D. (2022). Faculty Panel, Indiana University, Learning Sciences Graduate Student Conference (LSGSC), October 23, 2022.

Melo, N. A., Castro, F., Huff Jr, E., **Jayathirtha, G.,** Kivuva, M., Kong, M., Solomon, A., & Tsan, J. (2022).³ Kitchen Table Talk with Papaya Founders and Friends. <https://recipes4resistance.github.io/podcast/>.

Bettin, B., Chávez, V., Melo, N. A., Castro, F., Huff Jr, E., **Jayathirtha, G.,** Kong, M., Solomon, A., Jimenez, Y., & Tsan, J. (2022).⁴ Identity & Computing Lecture Series: Recipes for ResistanCSe. <https://identityincs.org/event/identity-computing-lecture-series-recipes-resistancse/>, November 15, 2022.

Kumar, V., **Jayathirtha, G.,** Dutta, D., & Uttamchandani, S. (2022).⁵ Launch of the *Manthan* website. <https://salsrc.net/manthan/>, November 16, 2022.

³All organizers contributed equally

⁴All organizers contributed equally

⁵All organizers contributed equally

- Jayathirtha, G.** (2022). Inquiry, Problem- and Design-based learning in STEM classes. A talk given at The University of Texas El Paso, Secondary Science Methods course, April 14, 2022.
- Jayathirtha, G.** (2022). My work, my identity, and my positionality. A talk given at The Teachers College, Columbia University, TLT Lab meeting, March 29, 2022.
- Jayathirtha, G.** (2021). Computing Education: Towards what ends? A talk given at University of Delaware, SIGCSE meeting, November 12, 2021.
- Jayathirtha, G.** & Kafai, Y. (2021). Notional Machines in a Semester- long Introductory Physical Computing High School Unit. In *Proceedings of the 14th ACM Conference on International Computing Education Research (ICER 2021)*, August 16–19, 2021, Virtual Event, USA. ACM, New York, NY, USA, 1 page. <https://doi.org/10.1145/3446871.3469796>.
- Jayathirtha, G.** (2021). A Call for Critical Investigation of Computing Education. In the *11th Annual Research Meeting Homi Bhabha Centre for Science Education 2021, Mumbai, India*. September 23-25, 2021.
- Jayathirtha, G.**, Chipps, J., & Morales-Navarro, L. (2021)⁶. Redesigning a High School Computing Lesson for Critical Computational Engagement. In *Proceedings of the 2021 IEEE Annual Conference on Research in Equity and Sustained Participation in Engineering, Computing, and Technology*.
- Jayathirtha, G.**, Morales-Navarro, L. & Chipps, J. (2021). Critical Introduction to E-textiles: Situating making within computing history and everyday student experiences. In Shaw and Kafai Symposium, Bringing Politics and Power into Computing Education, *Connected Learning Summit, 2021*.
- Jayathirtha, G.** (2020). Glass-boxing Technology Around Us. *Center for Professional Learning*, University of Pennsylvania Graduate School of Education, November 13, 2020.
- Jayathirtha, G.** (2020). Glass-boxing Computing: Notional Machines-Mediated Teaching and Learning with Electronic Textiles in an Introductory High School Classroom. In *Proceedings of the 2020 ACM Conference on International Computing Education Research*, 334-335. <https://doi.org/10.1145/3372782.3407113>.
- Huff, E. W., Castro, F., **Jayathirtha, G.**, Jimenez, Y., Kong, M., Melo, N. A., ... & Tsan, J. (2021)⁷. Going Through a Process of Whitening: Student Experiences Within Computer Science Education. In *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education*, 1348-1348. <https://doi.org/10.1145/3408877.3432497>.
- Jayathirtha, G.**, Kumar, V. & Uttamchandani, S. (2021)⁸. Towards a Transnational, Decolonial, and Non-WEIRD Learning Sciences: Implications of perspectives from beyond “the west.” *International Conference of the Learning Sciences (ICLS’21)*.

⁶All organizers contributed equally

⁷All organizers contributed equally

⁸All organizers contributed equally

Morales-Navarro, L., **Jayathirtha, G.**, & Kafai, Y. (2021). Making Online and at Home: Lessons Beyond the Pandemic. In *Connected Learning Summit 2021*.

Jayathirtha, G. & Kafai, Y. (2021). Opportunities and Challenges in Equity-Centered Online Teaching and Learning in K-16 Computing Education. *American Educational Research Association (AERA'21)*. April 8-12, 2021.

Kumar, V., **Jayathirtha, G.**, Halverson, E., Carter-Stone, L., Leander, K., Tissenbaum, M., Wheeler, N., & Litts, B. (2020). Becoming Together: Creating and Looking at Collaborations as Learning Products. In M. Gresalfi, M. & I. S. Horn (Eds.). *The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 3*, Nashville, TN: International Society of the Learning Sciences, 1511-1518.

Jayathirtha, G., Kafai, Y., Lui, D. A., Shaw, M. S., & Cho, J. Y. (2019). Collaborative Coding and Composing of JazzHands: Integrating the Learning of Advanced Computational Concepts with Electronic Textiles to Make Music Wearables. *50th ACM Technical Symposium on Computer Science Education (SIGCSE'19)*, ACM Press, 1274-1274. <https://doi.org/10.1145/3287324.3293810>.

Jayathirtha, G., Shaw, M., & Fields, D (2019). Debugging by Design: Learning by Making and Fixing Mistakes. *FabLearn'19*, March 9-10, 2019.

Jayathirtha, G. & Kafai, Y. (2019). Interactive Stitch Sampler of Equitable Learning and Teaching with Electronic Textiles in K-12 Education. *American Educational Research Association (AERA'19)*. April 5 - 9, 2019.

Jayathirtha, G. & Kafai, Y. (2019). The Coded Stitch: A Synthesis of Research on Electronic Textiles in Computer Science Education. *Computer Science + Learning Sciences Symposium (CL+LS'19)*. April 28 - 29, 2019.

TEACHING EXPERIENCE

Spring 2025	Data Structures & Algorithms in CS for Teaching (graduate) Instructor on-record	University of Illinois, U-C
Fall 2024, Fall 2025	Introduction to CS for Teaching (graduate) Instructor on-record	University of Illinois, U-C
Spring 2024	Teaching, Learning, & Assessment (undergraduate) Instructor on-record	University of Oregon
Fall 2022	Technology Education (undergraduate and graduate) Instructor on-record	University of Oregon

TEACHING ASSISTANTSHIPS

Fall 2021	Learning Sciences: Past, Present & Future (graduate) Instructor: Dr. Matthew Duvall <ul style="list-style-type: none"> • Designing guest lectures • Supporting hybrid teaching and learning 	University of Pennsylvania
Fall & Spring 2020	Learning Sciences: Past, Present & Future (graduate) Instructor: Dr. Yasmin Kafai <ul style="list-style-type: none"> • Jointly revised the curriculum • Coordinated and aided online facilitation • Supported geographically-spread student engagement 	University of Pennsylvania
Fall 2019	Maker Studio (undergraduate and graduate) Instructor: Dr. Yasmin Kafai <ul style="list-style-type: none"> • Led weekly hands-on Studio sessions • Assisted assignment development 	University of Pennsylvania

PROFESSIONAL ACTIVITIES & COMMUNITIES

Conference Committee

- ACM Transactions of Computing Education (TOCE) Journal, Associate Editor
- ACM Conference on Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT) 2025, Research Papers Co-Chair
- ACM International Computing Education Research (ICER) Conference 2025, Program Committee member
- RESPECT 2024, Experience Report Co-Chair
- RESPECT 2022, Posters & Lightning Talks Co-Chair
- RESPECT 2021, Registration and Scholarship Committee Chair
- Learning Sciences Graduate Student Conference (LSGSC) 2021, Speakers & Events Committee Co-Chair
- LSGSC 2020, Submissions & Review Committee Member
- College Research Committee, Member, College of Education, University of Illinois, Urbana-Champaign

Memberships

- [Cultural Competence in Computing \(3C\) Cohort 2 Fellow](#)
- [South Asian Learning Sciences Research Collective \(SALSRC\)](#)
- American Educational Research Association (AERA)
- International Society of the Learning Sciences (ISLS)
- Association for Computing Machinery (ACM)

Proposal and Paper Reviewing

- National Science Foundation (NSF) Proposal Review Panel, 2022, 2024
- Transactions of Computing Education (TOCE)
- Computers & Education (C&E)

- International Journal of Child-Computer Interaction (IJCCI)
- Journal of Research on Technology in Education (JRTE)
- British Journal of Educational Technology (BJET)
- Interactive Learning Environments (ILE)
- Information and Learning Sciences (ILS)
- The Elementary School Journal
- TechTrends
- International Computing Education Research conference (ICER)
- International Conference of the Learning Sciences (ICLS)
- ACM SIG Computer–Human Interaction (SIGCHI)
- ACM SIG Computer Science Education (SIGCSE)
- ACM Interaction Design and Children (IDC)
- IEEE Conference on Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)
- ACM Computing Education (CompEd)
- Technology 4 Education (T4E)
- Computational Thinking Education (CTE)
- International Conference on Computers in Education (ICCE)
- Connected Learning Summit (CLS)
- FabLearn Conferences (FabLearn)
- Learning Sciences Graduate Student Conference (LSGSC)

PRESS COVERAGE

- | | |
|--------------|---|
| October 2020 | Penn Engineering plans to help bring STEM education to underserved Philadelphia students
In The Daily Pennsylvanian [link]. |
| March 2015 | Magic Math: Contextualizing Math Learning through a Laboratory
In Karnataka, India's regional, leading newspaper. |