Ricarose Roque

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Appointments

University of Colorado Boulder

- Assistant Professor, Department of Information Science, 2016 – present
- By courtesy Computer Science
- By courtesy School of Education, Learning Sciences and Human Development
- Faculty Affiliate, ATLAS Institute
- Director, Creative Communities Research Group

Education

Massachusetts Institute of Technology

- Doctorate of Philosophy in Media Arts and Sciences, 2012 – 2016
- Advisor: Mitchel Resnick
- Thesis: *Family Creative Learning: Designing Structures to Engage Kids and Their Parents as Computational Creators*
- Committee Members: Mitchel Resnick, Mizuko (Mimi) Ito, Jane Margolis

Massachusetts Institute of Technology

- Masters of Science in Media Arts and Sciences, 2010 – 2012
- Advisor: Mitchel Resnick
- Thesis: *Making Together: Creative Collaboration for Everyone*

Massachusetts of Institute of Technology

- Masters of Engineering in Computer Science and Engineering, 2007
- Advisor: Eric Klopfer
- Thesis: *Open Blocks: An Extendable Framework for Block Programming Systems*

Massachusetts Institute of Technology

- Bachelors of Science in Computer Science and Engineering, 2006

Interests

- Equity and inclusion in computing, with a focus on youth and families from nondominant groups
- Equity-centered community design
- Facilitation and computational tinkering
- Human computer interaction and children

Grants, Contracts, and Gifts

Total Funding: $5,116,284 (Roque portion to CU: $1,633,393)

Federal Grants

Lead PI, National Science Foundation (NSF)

- Collaborative Research: Tinkering and Making Strategies to Engage Children and Families in Creating with Code
- Collaborating PIs and Orgs: Mike Petrich and Karen Wilkinson (Exploratorium) and Natalie Rusk (MIT)
- Amount: $2,370,438 ($951,516 to CU Boulder)
- Duration: 2020-2024

PI, National Science Foundation (NSF)

- Designing and Researching a Program for Preparing Teachers as Facilitators of Computational Making Activities in Classroom and Informal Learning Environments
- Co-PI: Melissa Braaten (University of Colorado Boulder)
- Amount: $449,994
- Duration: 2019-2023

PI, Institute of Museum and Library Services (IMLS) National Leadership Grant for Libraries

- Families Creating Together: Engaging Children and Parents in Design-Based Activities for the Cultivation of Computational Literacy
- Amount: $385,327
- Duration: 2017 - 2022

Foundations

PI, LEGO Foundation (Subcontract)

- Learning through Play with PicoPlay
- Collaborating PIs and Orgs: Mitchel Resnick, Natalie Rusk, Rupal Jain (MIT), Mike Petrich and Karen Wilkinson (Exploratorium), Brazilian Creative Learning Network
- Additional network collaborators: National Education Collaboration Trust (South Africa), University of Johannesburg (South Africa), Africa Code Week, Pratham (India), Edukreativos (Mexico), and Future Classroom Lab at University College Copenhagen (Denmark)
- Amount: $2,190,000 ($126,031 to CU Boulder)
- Duration: 2021-2024

PI, Future of Privacy Forum Education Innovation Foundation

- Investigating How Families Understand and Make Decisions Around Privacy
- Amount: $30,000 (Gift)
- Duration: 2019

Internal Project Grants

PI, CU Office of Engagement and Outreach Faculty Grant

- Bits and Threads: Weaving Cultural Worlds and Computing in Community-Based

Settings

- Co-PI: Laura Devendorf
- Amount: $13,725
- Duration: 2022-2023

Co-PI, CU Office of Engagement and Outreach Faculty Grant

- Communities Code Engaging Underrepresented Youth in Creative Computing
- Amount: $24,000
- Duration: 2019-2023 (Extended)

PI, CU UROP Team Grant

- Becoming Facilitators: How Informal Educators Learn to Support Others in Creative Computing
- Amount: $6,000
- Duration: 2018-2019

PI, CU Office of Engagement and Outreach Faculty Grant

- Communities Code Engaging Underrepresented Youth in Creative Computing
- Amount: $22,000
- Duration: 2018-2019

PI, CU UROP Team Grant

- StoryLamp: An interactive storytelling toolkit for early childhood to support the cultivation of computational literacy
- Amount: $3,000
- Duration: 2018-2019

Co-PI, CU Office of Engagement and Outreach Faculty Grant

- Communities Code Engaging Underrepresented Youth in Creative Computing
- Amount: $23,800
- Duration: 2017-2018

PI, CU UROP Team Grant

- Engaging Families in Creative Computing through Story-Making
- Amount: $3,000
- Duration: 2017-2018

Awards and Honors

- Jan Hawkins Award for Early Career Contributions to Humanistic Research and Scholarship in Learning Technologies, Division C of the American Educational Research Association, 2023
- Best Pictorial, ACM Interaction Design and Children (IDC), 2022

- Runner-Up, Jan Hawkins Award for Early Career Contributions to Humanistic Research and Scholarship in Learning Technologies, Division C of the American Educational Research Association, 2022
- Honorable Mention for Best Paper, ACM Interaction Design and Children (IDC), 2021
- Outstanding Faculty Mentor Award, Graduate School, CU Boulder (2021)
- Finalist for Best Paper, International Conference of the Learning Sciences (ICLS), 2018
- Best Student Paper, ACM Interaction Design and Children (IDC), 2018
- Finalist for Best Paper, International Conference of the Learning Sciences (ICLS), 2016
- Finalist for Best Student Paper, International Conference of the Learning Sciences (ICLS), 2016
- Oxford Internet Institute Fellow, Summer Doctoral Program, 2015
- Computer Science Collaboration Project Mini-Grant for Engaging Hispanic/Latino(a) Youth for *Creatividad, Computacion, and Communidad: Family Computer Science Nights at Agua Fria*, 2012
- National Science Foundation Graduate Fellowship, 2011
- Google Anita Borg Scholarship, 2011

Affiliations

- Future of Youth Public Librarian Education, Funded by Institute of Museum and Library Services, Advisory Board Member, 2020-present
- Multi-Gen STEM Makerspaces in Affordable Housing: Co-Designing a Model with the Community, Funded by National Science Foundation, Advisory Board Member, 2020-present
- PEAR Institute, Family Engagement in STEM, Advisory Board Member, 2020
- PBS SciGirls Season 5, Funded by National Science Foundation, Advisory Board Member, 2018
- Berkman Klein Center for Internet and Society at Harvard University: Faculty Associate (2016-2017), Fellow, (2015-2016)
- STELAR ITEST Fellow, 2017
- LA Makerspace: Advisory Board Member, 2014 – 2017
- Exploratorium, Tinkering Studio: Tinkerer-in-Residence, January 2015 & January 2016
- Children's Museum of Pittsburgh: Artist-in-Residence, August 2013

Conference Proceedings

Authors underlined are students I mentored.

[C27] **Roque, R.** (2023) Imagining Alternative Visions of Computing: Photo-Visuals of Material, Social, and Emotional Contexts from Family Creative Learning. *In the*

(Peer-Reviewed)

Proceedings of the 2023 ACM Interaction Design and Children (IDC '23) (pp. 1-14) Chicago, IL.

[C26] Hayden, R., Hladik, S., & **Roque, R.** (2023) Expanding and focusing infrastructuring analysis for informal STEM education. In Blikstein, P., Van Aalst, J., Kizito, R., & Brennan, K. (Eds.), *Proceedings of the 17th International Conference of the Learning Sciences - ICLS 2023* (pp. 998-1001). International Society of the Learning Sciences.

[C25] Moreno, C. & **Roque, R.** (2023) Revealing the tuning practices of creative learning experience designers. In *Proceedings of the 15th ACM Conference on Creativity and Cognition (C&C' 23).* Virtual. (pp. 1-12)

[C24] Yu, J, Hayden, R., **Roque, R.** (2023) Exploring computational thinking with physical play through design. In *Proceedings of the 22nd Annual ACM Interaction Design and Children Conference. (IDC '23)* (pp. 124-136). Chicago, IL.

[C23] Yu, J., Widman, S., & **Roque, R.** (2023) Family negotiation in joint media engagement with creative computing. *In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI ' 23).* Hamburg, Germany. (pp. 1-15). ACM. New York, NY USA.

[C22] **Roque, R**. & Tamashiro, M. (2022) Making Learning Visible in Constructionist Learning Contexts. *In the Proceedings of the 2022 ACM Interaction Design and Children (IDC 2022)* (pp. 69-81) Braga, Portugal. **(Best Pictorial)**

[C21] Yu, J. & **Roque, R.** (2022) Young children's perceptions of coding and implications. *In the Proceedings of the ACM Interaction Design and Children (IDC 2022)* (pp. 448-451) Braga, Portugal.

[C20] Widman, S., Hayden, R., Stamatis, K., & **Roque, R**. (2022) Disruptions, dissent, and discontinuities: What tensions in intergenerational learning dynamics reveal about learning design. In Chinn, C. Tan, E., Chan, C. & Yael, K, *International Collaboration toward Educational Innovation for All: Overarching Research, Development, and Practices (ICLS) 2022.* Virtual. (pp. 1613-1616)

[C19] Ruppert, J., **Roque, R**., Shapiro, R.B. (2022) Opportunities and challenges for enacting equity and justice-centered CS Learning in "Drag vs. AI." In Chinn, C. Tan, E., Chan, C. & Yael, K, *International Collaboration toward Educational Innovation for All: Overarching Research, Development, and Practices (ICLS) 2022.* (pp.2052-2053)

[C18] **Roque, R**., Tamashiro, M., McConnell, K., Granados, J. (2021) Opportunities and Limitations of Construction Kits in Culturally Responsive Computing Contexts: Lessons from ScratchJr and Family Creative Learning. *In the Proceedings of the ACM Interaction Design and Children (IDC 2021)* (pp. 246-256) Virtual Conference. **(Honorable Mention for Best Paper)** (36% Acceptance Rate)

[C17] Yu, J., Devore, A., and **Roque, R**. (2021) Parental Mediation for Young Children's Use of Educational Media: A Case Study with Computational Toys and Kits. *In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI ' 21).* (pp. 1-12) Yokohama, Japan. ACM. New York, NY USA. (26% Acceptance Rate)

[C16] **Roque, R.** (2020) Qualities of Identity Resources in Creative Computing Activities**.** In Gresalfi, M. & Horn, I.S., *The Interdisciplinarity of the Learning Sciences: The International Conference of the Learning Sciences (ICLS) 2020, Volume 1* (pp. 207-214). Nashville, TN: International Society of the Learning Sciences. (38% Acceptance Rate)

[C15] Yu, J., Chenke, B., **Roque, R**. (2020) Considering Parents in Coding Kit Design: Understanding Parents' Perspectives and Roles. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems* (CHI). (pp. 1-14). Honolulu, Hawaii. (23.8% Acceptance Rate)

[C14] Yu, J., Zheng, C., Tamashiro, M., Gonzalez-millan, C. & **Roque, R**. (2020) CodeAttach: Engaging Young Children in Computational Thinking Through Physical Play Activities. *In Proceedings of the Fourteenth International Conference on Tangible, Embedded, and Embodied Interaction (TEI)*, (pp. 453-459), Sydney, NSW, Australia. (28% Acceptance Rate)

[C13] **Roque, R**. & Stamatis, K. (2019) It's about relationships: Examining facilitation as a relational practice. In Kalir, J.H. & Filipak, D., *Proceedings of the 2019 Connected Learning Summit (CLS),* (pp. 155-163). Irvine, CA: ETC Press.

[C12] Widman, S. & **Roque, R**. (2019) Parent perspectives on interfacing with computing opportunities in library settings. In Kalir, J.H. & Filipak, D., *Proceedings of the 2019 Connected Learning Summit (CLS),* (pp. 180-188). Irvine, CA: ETC Press.

[C11] Tamashiro, M., Burd, L., & **Roque, R.** (2019) Creative Learning Kits for Physical Microworlds: Supporting the making of meaningful projects using low-cost materials. In *Proceedings of the 18th ACM International Conference on Interaction Design and Children (IDC)* (pp. 514-519). ACM. (33% Acceptance Rate)

[C10] **Roque, R.** & Jain, R. (2018) Becoming facilitators of creative computing in informal learning contexts. In Kay, J & Luckin, R., *Rethinking learning in the digital age: Making the learning sciences count: The International Conference of the Learning Sciences (ICLS) 2018, Volume 1* (pp. 592-599). London: International Society of the Learning Sciences. **(Finalist for Best Paper)** (32% Acceptance Rate)

[C9] Yu, J. & **Roque, R.** (2018) A Survey of computational kits and toys for young children. *In Proceedings of the 17th ACM Conference on Interaction Design and Children (IDC)*. (pp. 289-299) Trondheim, Norway. **(Awarded Child Computer Interaction Best Student Paper)** (29% Acceptance Rate)

[C8] Powell, D., Gyory, P., **Roque, R.**, & Bruns, A. (2018) The telling board: An interactive storyboarding tool for children. *In Proceedings of the 17th ACM Conference on Interaction Design and Children (IDC)*. (pp. 289-299) Trondheim, Norway. (pp. 575-580) (29% Acceptance Rate)

[C7] **Roque, R.**, Lin, K., & Liuzzi, R. (2016) "I'm not just a mom": Parents developing multiple roles in creative computing. In C. K. Looi, Polman, J., Cress, U., & Reimann, P., *Transforming learning, empowering learners: The International Conference of the Learning Sciences (ICLS) 2016, Volume 1* (pp. 663-670). Singapore:

International Society of the Learning Sciences. **(Finalist for best paper and Finalist for best student paper)** (31% Acceptance Rate)

[C6] **Roque, R.**, Lin, K. & Liuzzi, R. (2015) Engaging parents as creative learning partners in computing. In Lindwall, O., Häkkinen, P., Koschmann, T., Tchounikine, P., & Ludvigsen, S. *Proceedings of the 2015 Computer-Supported Collaborative Learning (CSCL) Conference, Volume 2* (pp. 687-688). Göteborg, Sweden: International Society of the Learning Sciences. (45% Acceptance Rate)

[C5] **Roque, R.**, Rusk, N., Beck, L., Chen, X. (2014) Family creative learning: Engaging parents and children as learning partners in creative technology workshops. In J. L. Polman, Kyza, E. A., O'Neill, D. K., Tabak, I., Penuel, W. R., Jurow, A. S., O'Connor, K., Lee, T., & D'Amico, L., *Learning and becoming in practice: The International Conference of the Learning Sciences (ICLS) 2014, Volume 3* (pp. 1623-1624). Boulder, CO: International Society of the Learning Sciences. (52% Acceptance Rate)

[C4] **Roque, R.**, Kafai, Y., and Fields, D. (2012) From tools to communities: Designs to Support Online Creative Collaboration in Scratch. *In Proceedings of* 11th *International Conference on Interaction Design and Children* (IDC). (pp. 220-223) Bremen, Germany. (31% Acceptance Rate)

[C3] **Roque, R.**, Rusk, N., Blanton, A. (2013) Youth roles and development of leadership in an online creative community. In Rummel, N., Kapur, M., Nathan, M., & Puntambekar, S. *Proceedings of the Computer Supported Collaborative Learning (CSCL) Conference. Volume 1,* (pp. 399-406) Madison, WI: International Society of the Learning Sciences. (36% Acceptance Rate)

[C2] Kafai, Y., **Roque, R**., Fields, D., Monroy-Hernandez, A. (2011) Collaboration by choice: Youth online creative collabs in Scratch. In T. Hirashima et al. (Eds.) (2011). *Proceedings of the 19th International Conference on Computers in Education.* (pp. 189-193) Chiang Mai, Thailand: Asia-Pacific Society for Computers in Education.

[C1] Brennan, K., Valverde, A., Prempeh, J., **Roque, R**., Chung, M. (2011) More than code: The significance of social interactions in young people's development as interactive media creators. In T. Bastiaens & M. Ebner (Eds.), *Proceedings of EdMedia: World Conference on Educational Media and Technology 2011* (pp. 2147-2156). Waynesville, NC: Association for the Advancement of Computing in Education (AACE). **(Outstanding Paper Award)**

Journal Articles (Peer-Reviewed)

[J9] Ruppert, J., Velazquez-Ramos, D., **Roque, R**., & Shapiro, R.B. (2023) Taking play and tinkering seriously in AI education: Cases from Drag vs AI teen workshops. *Learning, Media, and Technology,* 1-15.

[J8] **Roque, R.**, Hladik, S., Moreno, C., & Hayden, R. (2023). Surfacing the complex conceptions of equity across making and tinkering spaces. Information and Learning Sciences, 124(7/8), 221-239.

[J7] Yu, J., Granados, J., Hayden, R., and **Roque, R.** (2021) Parental Facilitation of

Young Children's Technology-based Learning Experiences from Families with Limited Resources During the COVID-19 Pandemic. *In Proceedings of the ACM Human-Computer Interaction (PACM HCI).* 5, CSCW2, Article 207, 27 pages.

[J6] **Roque, R**. & Rusk, N. (2019) Youth perspectives on their development in a coding community. *Information and Learning Sciences.* 120(5/6): 327-348.

[J5] Yu, J. & **Roque, R.** (2019) A review of computational toys and kits for young children. *International Journal of Child-Computer Interaction, 21,* 17-36.

[J4] **Roque, R.**, Dasgupta, S., & Costanza-Shock, S. (2016) Children's civic engagement in the Scratch Online Community. *Social Sciences.* 5(4): 1-17.

[J3] Kafai, Y., Fields, D., **Roque, R**., Burke, Q., Monroy-Hernandez, A. (2012) Collaborative agency in youth online and offline creative production in Scratch. *Research and Practice In Technology Enhanced Learning (RPTEL)*, 7(2): 63-87.

[J2] Jona, K., **Roque, R.**, Skolnik, J., Uttal, D., Rapp, D. (2011). Are remote labs worth the cost? Insights from a study of student perceptions of remote labs. *International Journal of Online Engineering*, 7(2), 48-53.

[J1] Klopfer, E., Scheintaub, H., Huang, W., Wendel, D., and **Roque, R**. (2009) The Simulation Cycle: combining games, simulations, engineering, and science using StarLogo TNG. *E-Learning and Digital Media*, 6(1), 71-96

Book Chapters, Essays

[B6] Livingstone, S., Bulger, M., Burton, P., Day, E., Lievens, E., Milkaite, I., De Leyn, T., Martens, M., **Roque, R.**, Sarikakis, K., Stoilova, M., De Wolf, R. (2022) Children's privacy and digital literacy across cultures. In Pangrazio, L. and Sefton-Green, J. (Eds.) *Learning to Live with Datafication: Educational Case Studies and Initiatives from Across the World.* Routledge.

[B5] **Roque, R.** and Widman, S. (2021) Engaging families in computational literacy opportunities. In Lopez, E., Mehra, B., & Caspe, M. (Eds.), *A Librarian's Guide to Engaging Families in Learning* (pp.107-116). Santa Barbara, CA: ABC-CLIO.

[B4] **Roque, R.** (2020) Building projects, building relationships: Designing for family learning. In Holbert, N., Berland, M., & Kafai, Y. (Eds.), *Designing Constructionist Futures: The Art, Theory, and Practice of Learning Designs* (pp.195-204). Cambridge, MA: MIT Press.

[B3] **Roque, R.** (2016). Family Creative Learning. In Peppler, K., Kafai, Y., & Halverson, E. (Eds.) *Makeology: The maker movement and the future of learning* (pp. 47-63). New York, NY: Routeledge.

[B2] **Roque, R**, Rusk, N., Resnick, M**.** (2016). Supporting diverse and creative collaboration in the Scratch online community. In Cress, U., Jeong, H., and Moskaliuk, J. (Eds.) *Mass Collaboration and Education* (pp.241-256). Springer.

[B1] **Roque, R.** (2015). Connecting creativity and coding: Creativity in the context of skills, literacy, and learning. In Cortesi, S. and Gasser, U. (Eds.) *Digitally Connected.* (pp. 57-59) The Social Science Research Network Electronic Paper Collection.

Magazine Articles

[M2] Yu, J., Ruppert, J., **Roque, R.**, and Kirshner, B. (2020) Youth Civic Engagement Through Computing: Cases and Implications. *ACM Inroads*. 11, 4, (pp. 42-51).

[M1] Fiesler, C., Aspray, B., Barker, L, Brubaker, J., Devendorf, L, Keegan, B., Palen, L., Paul, M., Szafir, D., **Roque, R.**, and Robinson, R. (2017) Information Science at CU Boulder. *Interactions*. 24(4), 18-21.

Curriculum

[Cu2] **Roque, R.** and Moreno, C. (2022) Family Creative Learning Facilitator Guide, ScratchJr Edition. Retrieved from: http://familycreativelearning.org/guide/ Creative Commons Share-Alike License.

[Cu1] **Roque, R.** and Leggett, S. (2014) Family Creative Learning Facilitator Guide. Retrieved from: http://familycreativelearning.org/guide/ Creative Commons Share-Alike License.

(Downloaded nearly than 5,000 times and adapted nationally by PBS Kids)

Software Libraries

[S1] Klopfer, E., Wendel, D., **Roque, R.,** McCaffrey, C., Lunduo, Y., Ho, A., Warne, B., Liu, X., and Nga, H (2009) OpenBlocks. [Open source Java library for creating blocks-based programming user interfaces.] Retrieved from: https://web.mit.edu/mitstep/openblocks.html

(Used by Google for AppInventor for Android, ArduBlock, blockly, and many more to create block-based programming user interfaces)

Paper Presentations, Panels, Workshops

[P46] Braaten, M., **Roque, R.**, Hayden, R., & Tetu, E. (2023) "They Are Whole People": Consequential Transitions for Pre-Service Teachers Participating in a Family Creative Computing Program. Kumar, V. (Chair), Expansive Lenses to Examine Interventions (of) Moving Across Contexts. Symposium conducted at the 17th International Conference of the Learning Sciences (ICLS), Montreal, Canada

(Peer-Reviewed)

[P45] **Roque, R.** (Chair) Hayden, R., Moreno, C., Ruppert, J., Hladik, S., Hernandez, J., Matsumoto, R., Martin, S., Muscat, S., Wong, M., Petrich, M., Wilkinson, K., Jain, R., Rusk, N., Rodeghiero, C., and Martin, C. (2023) Facilitating Computational Tinkering: Exploratory and Expansive Collaborative Design Work with Informal Learning Educators. Symposium at FabLearn/Construction conference.

[P44] **Roque, R.,** Hayden, R., Moreno, C., & Hladik, S. (2022) Equity is a moving target: Engaging informal learning educators differing visions of equity. Hladik, S. (Chair), *Examining Equity in Facilitation of Tinkering and Making in STEAM***.** Symposium conducted at the International Conference of the Learning Sciences (ICLS), Virtual.

[P43] Ito, M., Resnick, M., Rusk, N., **Roque, R**. & Stevens, R. (2021) Growing Connected Learning Innovations: How Can We Stay Grounded in Research and Mission While Achieving Impact. Symposium for the 2021 Connected Learning

Summit (CLS). Online

[P42] Bulger, M., Stoilova, M., Livingstone, S., Nandagiri, R., **Roque, R.**, Burton, P., & Day, E. (2021) Children and adolescents' understanding of their data privacy online – comparing experiences across diverse contexts. International Communication Association Conference (ICA). Online

[P41] **Roque, R.** (2020) The Role of Material Resources in Identity Development in Creative Computing Activities. Svihla, V. (chair) Materiality and Sociomaterial Practices in Learning, Designing, and Making**.** Symposium for the 2020 American Education Researchers Association (AERA). San Francisco, CA. (Conference Canceled)

[P40] Stamatis, K., Widman, S., & **Roque, R.** (2020) Designing for Multiliteracies to Promote the Development of Youth Coding Skills in Library Contexts. In Designing Learning in Libraries Roundtable for 2020 American Education Researchers Association (AERA). San Francisco, CA. (Conference Canceled)

[P39] Bulger, M., Livingstone, S., & **Roque, R**. (2020) Privacy as a Family Balancing Act: Navigating Surveillance Online, At Home, and in Schools. Portugal European Communication Conference. (Conference Canceled)

[P38] **Roque, R.** (2019) Engaging Families in Computational Literacy by Creating and Sharing Stories. Wong-Villacres, M. (chair) Connected Learning Across Socio-Cultural Borders: Designing to Support Immigrant Parents. Symposium for the 2019 Connected Learning Summit. Irvine, CA.

[P37] **Roque, R.** (2019) Families Creating Together. Carrison, T. (chair) *Coding @ the Library: Lessons Learned from IMLS Funded Projects for Jumpstarting Computer Science Programs in Your Library.* Panel for the Annual Conference of the American Library Association (ALA). Washington, D.C.

[P36] **Roque, R**. (2018) Becoming facilitators in Family Creative Learning. Kali, L. (chair) *Volunteers "make" all the difference: Leveraging volunteer support for facilitating making and tinkering spaces*. Panel for the Association of Science and Technology Centers (ASTC). Hartford, CT.

[P35] **Roque, R.** (2018) Constructionist learning for families. Berland, M., Holbert,N. & Kafai, K. (co-chairs) *Constructionism in context: Connected learning across technologies and spaces.* Symposium for the Connected Learning Summit (CLS). Cambridge, MA.

[P34] **Roque, R.** & Leggett, S. (2018) Designing creative learning workshops that put the learner in charge. Workshop for the Connected Learning Summit (CLS). Cambridge, MA

[P33] **Roque, R.** (2018) Family Creative Learning: Supporting computational literacy through story-making. Searle, K. and Litts, B. (co-chairs) *Connecting learning across generations and context: Designing for family learning.* Symposium for the Connected Learning Summit (CLS). Cambridge, MA

[P32] **Roque, R.** (2018) Making projects, making identities: Families constructing their

own computing identities. Suarez, E. (Chair), *Designing for axiological innovation within family-centered learning environments***.** Symposium conducted at the International Conference of the Learning Sciences (ICLS), London, U.K

[P31] **Roque, R.** (2018) The development of parent roles in a family technology program. In Luce, M. (Chair), *Expanding participation in science and technology learning through novel designs for family science nights*. Symposium conducted at the American Education Researchers Association (AERA), New York, NY.

[P30] **Roque, R.**, Rusk, N., Ito, M., & Nacu, D. (2017) Beyond initial engagement: Supporting youth development in creative online communities. *Panel presentation for the Digital Media and Learning Conference (DML)*, Irvine, CA.

[P28] Fontaine, C., **Roque, R.**, & Rusk, N. (2017) Self-making: How youth and educators construct an evolving sense of identity on online platforms. *Panel presentation for the Digital Media and Learning Conference (DML)*, Irvine, CA.

[P27] Martin, C.K., Sandherr, Jim, Acholonu, U., **Roque, R.**, Pinkard, N., McNamara. (2016) Making a difference: Design strategies to engage underrepresented communities in maker space. *Panel presentation for the Digital Media and Learning Conference (DML)*, Irvine, CA.

[P26] **Roque, R.**, Rusk, N., Schilling, E., Leggett, S., Martin, C., Protopapa, S., Avila, C., Haduong, P. (2015) Hip-hop dance and Scratch: Interest-based pathways into computational fluency. *Workshop for the Digital Media and Learning Conference (DML)*, Los Angeles, CA

[P25] Garrity, C., **Roque, R.**, Onuoha, F. (2015). Hip-hop Scratch: Dance, music, and coding. Workshop for the *Intel Computer Clubhouse Network Annual Conference*. Portland, OR.

[P24] Kafai, Y., Rusk, N., Burke, Q., Peppler, K., Fields, D., **Roque, R**., Elinich, K., Telhan, O., Magnifico, A. (2014) Motivating and broadening participation: Competitions, contests, challenges, and circles for supporting STEM learning. Symposium at the *11th Annual Conference of the Learning Sciences* (ICLS). Boulder, CO,

[P23] **Roque, R.** & Otts, S. (2014) Program your world: Scratch and MaKey MaKey. *Workshop for the Allied Media Conference (AMC)*, Detroit, MI.

[P22] DiSalvo, B., **Roque, R**., Stevens, R., Takeuchi, L., and Taylor, K. (2014) Learning with technology: Different perspectives from low-income families. Symposium for *American Education Researchers Association* (AERA). Philadelphia, PA.

[P21] **Roque, R.** and Onuoha, F. (2014) Beyond the project showcase: Engaging parents and children in design-based activities with computing. Presentation for the *Intel Computer Clubhouse Network Annual Conference*. Denver, CO.

[P20] **Roque, R.**, Onuoha, F., and Fernando, C. (2014) Scratch and MaKey MaKey: Designing across digital and physical experiences. Workshop for the *Intel Computer Clubhouse Network Annual Conference*. Denver, CO.

[P19] Peyina, L., **Roque, R**., Wardrip, P., Ahn, J., and Shaprio, B. (2014) Designing futures for peer-2-peer learning @ CSCW. Workshop for *Computer Supported Cooperative Work and Social Computing* (CSCW). Baltimore, MD

[P18] **Roque, R.** (2014) Designing creative learning experiences for families. Short Talk at the Digital Media Learning (DML) conference. Boston, MA.

[P17] **Roque, R.** (2014) Supporting family learning through digital and physical making. Workshop at Mozilla Festival (Mozfest) 2013. London, UK.

[P16] **Roque, R.** (2013) The family that creates together: Designing creative learning experiences for families. Poster presentation for the Digital Fabrication and Making in Education Workshop at the 12th *International Conference on Interaction Design and Children* (IDC). New York, NY.

[P15] **Roque, R.** and Onuoha, F. (2013) A family that creates together: Designing creative learning experiences for families. Presentation for *Intel Computer Clubhouse Network*, Annual Conference. Boston, MA.

[P14] **Roque, R.** (2013) Understanding parental perceptions around computing and creativity. Presentation for Panel "Action Research and Organizational Learning" at the 2013 *Student Research Conference at Harvard University*. Cambridge, MA.

[P13] **Roque, R.** (2013) A family that creates together: Designing creative technology workshops for families. Roundtable at *Digital Media and Learning Conference* (DML). Chicago, IL.

[P12] Wardrip, P., Shapiro, B., Forte, A., Brennan, K., and **Roque, R.** (2013) CSCW and education: Viewing education as a site of work practice. Proceedings of the 2013 conference on *Computer Supported Cooperative Work* (CSCW). San Antonio, TX.

[P11] **Roque, R**. (2012) Designing creative technology playgrounds for families. Workshop at the 2012 *Mozilla Festival (Mozfest)*. London, UK.

[P10] **Roque, R**. (2012) Creating technologies of their own: Examining young women's participation in an online programming community. Presentation at the *2012 Girls and Digital Culture Conference*. London, UK.

[P9] Brennan, K. and **Roque, R.** (2012) A culture of sharing: Exploring ways to support connections among designers of digital media. Workshop at the 2012 *Digital Media and Learning* (DML) Conference. San Francisco, CA.

[P8] **Roque, R.**, Fields, D., Siegal, J., Low, D., Kafai, Y. (2012) A clubhouse of their own: A role-playing game society in Scratch programming community. *American Education Researchers Association (AERA)* conference. Vancouver, Canada.

[P7] Siegal, J., **Roque, R.**, Low, D., and Kafai, Y. (2012) Understanding the creative and collaborative literacy practices in the Scratch Online Community: A role playing case study. Panel at the 2012 *University of Pennsylvania Ethnography Forum*. Philadelphia, Pennsylvania.

[P6] Brennan, K., Maloney, J., & **Roque, R**. (2011). Teaching and learning with Scratch. Discussion session conducted at SIGCSE conference, Dallas, TX.

[P5] Wolz, U., Brennan, K., Maloney, J., & **Roque, R**. (2011). What makes a good Scratch program? Examining structure and style in Scratch programs. Discussion session conducted at SIGCSE conference, Dallas, TX.

[P4] Sauter, M., Rapp, D. N., Uttal, D., Jona, K., Skolnik, J., & **Roque, R**. (2011). Grounding students' understandings of 'doing science' in actual lab experiences. *American Educational Research Association (AERA)*, New Orleans, LA.

[P3] Braafladt, K., Czarnecki, K., Matthias, C., Myers, B., Nelson, J., and **Roque, R**. (2010) Turtles, Gobos, Greeps and Brick Blocks: Design-based Learning Models in Informal Settings. Panel at Games, Learning and Society. Madison, WI.

[P2] Skolnik, J. and **Roque, R**. (2010) The iLab Network: Broadening Access to Hands-on STEM Learning via Remote Online Laboratories. Presentation at International Online Conference.

[P1] Skolnik, J., **Roque, R**., Sauter, M., Jona, K., Uttal, D., and Rapp, D.N. (2010) *Student discourse about scientific inquiry as a function of simulated and remote learning experiences.* Poster to the 20th annual meeting of the Society for Text and Discourse, Chicago, Illinois.

Presentations, Panels, and Workshops (Invited)

[I35] **Invited Speaker.** (2022) Family Creative Learning. Scratch Conference. Online.

[I34] **Invited Panelist.** (2021) Doing Both: Academic and Community Based Work. Panel for the Rising Scholars of the Connected Learning Summit. Online.

[I33] **Invited Participant.** (2020) Workshop on Remote Research Methods. Joan Ganz Cooney Sesame Workshop. Online.

[I32] **Invited Speaker.** (2020) Seeds of Family Creative Learning. LEGO Ideas Conference. Billund, Denmark.

[I31] **Invited Participant.** (2019) National Forum on Research and Assessment of Library Makerspaces. University of Wisconsin Madison and Maker Ed. Madison, WI.

[I30] **Invited Speaker.** (2019) Family Creative Learning. LEGO Ideas Conference. Billund, Denmark.

[I29] **Invited Fellow.** (2018) Tinkering in the Digital Age: Exploring Reggio Emilia Documentation. LEGO Idea Studio. Billund, Denmark.

[I28] **Roque, R**. (2018) Growing Up with Scratch. Invited Keynote for Scratch@MIT.

[I27] **Roque, R.** (2017) Exploring the role of families in broadening participation in computing. Learning Science Colloquium Series at Northwestern University School of Education and Social Policy.

[I26] **Roque, R.** (2017) Growing Up in Scratch. Keynote for Scratch@Bordeaux

Conference. Bordeaux, France

[I25] **Roque, R.** (2017) Family Creative Learning: Structures to Engage Children and Parents as Computational Creators. Equity in Education Meeting at Data and Society. New York, NY

[I24] **Roque, R.** (2016) Creative Collaboration in Scratch. INFO 3501 Peer Production and Crowd Sourcing INFO 3501 Guest Lecture. Boulder, CO.

[I23] **Roque, R.**, Ito, M., Pinkard, N. (2016) Pathways to Participation. Keynote Panel for Scratch@MIT Conference. Cambridge, MA.

[I22] **Roque, R.** (2015) Convert Ideas Into Reality with Scratch and MaKey MaKey. Workshop at FabLearn Asia. Tokyo, Japan.

[I21] **Invited Participant.** (2015) New Profit Early Learning Fund Convening. Sesame Workshop. New York City, NY.

[I20] **Roque, R.** (2015). Family Creative Learning. CharlesX Colloquim hosted by HarvardX and MITX. Cambridge, MA.

[I19] **Roque, R.** (2015). Designing supports for creative learning. Microsoft Minecraft Educators Summit. Los Angeles, CA

[I18] **Roque, R.** (2015) Family Creative Learning. Brown bag talk at Tinkering Studio, Exploratorium. San Francisco, CA.

[I17] **Roque, R.,** Protopapa, S., Musarra, C., Martin, C., Avila, C. (2014) Scratch and hip-hop dance. Workshop at the Juniper Serra Library. Los Angeles, CA.

[I16] **Roque, R.** (2014) Family Creative Learning. Opening Keynote for Scratch Day @ NYC.

[I15] **Roque, R.** (2014) Scratch and Family Creative Learning. Massachusetts Exploring Computer Science. Cambridge, MA.

[I14] Resnick, M., Dasgupta, S., **Roque, R.**, Rusk, N., Bers, M. (2014) Looking Back, Looking Ahead. Opening Keynote for Scratch@MIT 2014 conference. Cambridge, MA.

[I13] **Invited Participant.** (2014) Research on Making and Learning. Children's Museum of Pittsburgh. Pittsburgh, PA.

[I12] **Roque, R.** (2014) Sowing the seeds for a more creative society. Lunch talk at Girls Who Code Boston, Cambridge, MA.

[I11] **Roque, R.** (2014) Getting started with MaKey MaKey. Workshop at Google 4 Doodle. Mountain View, CA.

[I10] **Invited Participant.** (2014) Global youth and digital symposium. Harvard University Berkman Center. Cambridge, MA.

[I9] Waldo**,** J., **Roque, R.**, Jacobs, J., & Magliozzi, A. (2014) Technology and Education Panel. Harvard University WeCode Conference, Cambridge, MA.

[I8] Rusk, N., Schmitt, P., **Roque, R.** (2014) Motivation and online learning networks. Workshop at MIT Media Lab. Cambridge, MA.

[I7] **Roque, R.** (2013) Computer animation with Scratch. Workshop for Lights On GUTS and GUTS y Girls celebration. Santa Fe, NM.

[I6] **Roque, R.** (2012) Sowing the seeds for a more creative society. Invited lecture at Greater Hartford Academy of Math and Science. Hartford, CT.

[I5] **Roque, R.** (2012) Creativity Without Bounds: Build Your Own Games, Stories, and Animations in Scratch. Workshop for Digital Family Summit. Philadelphia, PN.

[I4] **Roque, R.** (2012) Sowing the seeds for a more creative society. Talk for Fathom Information Design. Cambridge, MA.

[I3] **Roque, R.** and Chung, M. (2012) Getting Started with Scratch. Workshop at the 2nd Massachusetts School Librarians Association. Hyannis, MA.

[I2] **Roque, R.** and Siegel, J. (2011) Mediating the Power of Networked Learning. Lecture for the Power of Networked Learning course at Harvard University. Cambridge, MA.

[I1] Chow, C., Carey, C., **Roque, R.**, and Walsh, J. (2011) The Serious Business of Play. Panel at National Coalition of Girls' Schools. Wellesley, MA.

Teaching

- Instructor, INFO 4609/5609 User Centered Design (Fall 2023), 25 undergraduate students, 15 graduate students
- Instructor, INFO 4700 Senior Capstone (Fall 2023), 17 undergraduate students
- Instructor, INFO 4608/5608 Community-Based Design (Spring 2023): 32 undergraduate students, 18 graduate students
- Instructor, INFO 4700 Senior Capstone (Fall 2022): 7 undergraduate students
- Instructor, INFO 4609/5609 User Centered Design (Spring 2022): 10 graduate students, 35 undergraduate students
- Instructor, INFO 4700 Senior Capstone (Fall 2021): 11 undergraduate students
- Instructor, INFO 4608/5608 Community-Based Design (Spring 2021): 8 graduate students, 13 undergraduate students.
- Instructor, INFO 3505/5505 Designing for Creativity and Learning (Fall 2020): 3 graduate students, and 15 undergraduate students
- Instructor, INFO 4700 Senior Capstone (Spring 2020): 22 undergraduate students.
- Instructor, INFO 4608/5608 Community-Based Design (Spring 2019): 4 graduate students, 12 undergraduate students.
- Instructor, INFO 3505/5505 Designing for Creativity and Learning (Fall 2018): 5 graduate students, and 12 undergraduate students

- Instructor, INFO 1201 Computational Reasoning 1 (Spring 2018): About 120 undergraduate students with 3 Teaching Assistants
- Instructor, INFO 3505/5505 Designing for Creativity and Learning (Fall 2017): About 7 graduate students, 14 undergraduate students
- Instructor, INFO 1201 Computational Reasoning 1 (Spring 2017): About 80 undergraduate students with 3 Teaching Assistants
- Instructor, INFO 1111 Representations (Fall 2016). Co-instructor: Jed Brubaker: About 25 undergraduate students
- Instructor, MAS.s62 *Unpacking Impact: Reflecting As We Make* (Fall 2015). Co-instructors: Sayamindu Dasgupta, J. Nathan Matias; 13 graduate students
- Teaching Assistant, MAS.712 *Learning Creative Learning* (Spring 2013). Instructor: Mitchel Resnick, Natalie Rusk, Philipp Schmidt. 16 graduate students, over 24,000 registered online students

College and Departmental Service

University of Colorado Boulder

- INFO Executive Committee, 2022 – Present
- INFO Space Committee, Spring 2023
- INFO ARPAC Committee Review, 2021
- CU Engage Community Based Research Fellows Award Review Committee, 2021
- CMCI Academic Community and Diversity Committee, 2019-Present
- CU Information Science Graduate Student Committee, 2019-2022
- CU Information Science Graduate Student Formal Events Coordinator, 2018 - 2019
- CMCI Undergraduate Curriculum Committee, 2017 – 2021
- CU Information Science Undergraduate Curriculum Committee, 2016 – 2018
- CU Engage Community Based Research Fellows Award Review Committee, 2018
- CMCI Scholarship Committee, 2017
- Senior Instructor Hire Committee, Information Science, 2017
- CU Information Science Awards and Nominations Chair, 2016-2017

Massachusetts Institute of Technology

- Graduate Women at MIT Mentoring, Member, Co-Chair, Event Lead, 2012 - 2016
- MIT Media Lab Student Committee, Member, 2011 – 2016
- MIT Media Lab Diversity Committee, 2011 – 2016
- MIT Media Lab Festival of Learning Organizing Committee, 2011 – 2012

Professional Service

Conference Reviews

- CHI, 2013-Present
- Connected Learning Summit (formerly Digital Media and Learning): 2013-Present
- CSCW, 2013-Present
- ICLS, 2015-Present
- CSCL, 2015-Present
- IDC, 2013-Present
- FabLearn, 2019
- AIED, 2018

Journal Reviews

- Cognition and Instruction, 2022
- Educational Researcher, 2021
- Information and Learning Sciences, 2019, 2022
- Journal of Children and Media, 2020
- Journal of Learning Sciences, 2018, 2021, 2023

Grant Reviews

- National Science Foundation Grant Reviewer, EHR Directorate, 2023
- National Science Foundation Grant Reviewer, EHR Directorate, 2021
- National Science Foundation Grant Reviewer, EHR Directorate, 2018
- National Science Foundation Grant Reviewer, EHR Directorate, 2017
- Institute of Museum and Library Services Grant Reviewer, 2017

Program Committees

- Pictorial Co-Chair, Interaction Design and Children (IDC), 2023
- Research Track Co-Chair, Connected Learning Summit, 2022
- Pictorial Co-Chair, Interaction Design and Children (IDC), 2022
- Program Committee, Committee, Connected Learning Summit (Previously Digital Media and Learning conference), 2019-2022
- Advisory Committee, Connected Learning Summit (Previously Digital Media and Learning conference), 2018-2019
- Program Committee, FabLearn, 2019

Research Supervision

* Indicates students and postdocs who are co-authors on academic papers and presentations

Research

Post-doctoral Researchers (CU Boulder)

Advisor

- Stephanie Hladik (Fall 2021 – July 2022) *
- Lila Finch (2020-2021)

Ph.D. Students Primary Advisor (CU Boulder)

- Mimi Shalf (expected PhD '27), ATLAS
- Ronni Hayden (expected PhD. '25), ATLAS *
- Celeste Moreno (expected PhD. '24), ATLAS *
- Junnan Yu (PhD '22), Information Science *
- Janet Ruppert (PhD '23), Information Science *

Masters Students Primary Advisor (CU Boulder)

- Mariana Tamashiro (M.S. '20), ATLAS *

Undergraduate (CU Boulder)

- Julisa Granados, B.S., Psychology and Neuroscience (Received UROP RA Award) *
- Kathryn McConnell, B.A. Interactional Affairs and Spanish for the Professions (Received UROP RA Award) *
- Cesar Iza, B.A. Interactional Affairs and Spanish for the Professions
- Savannah Reyes, B.S. Psychology and Spanish
- Alejandra Ivette Ramirez, B.S. Psychology and Spanish
- Andrea Forte, B.S., ATLAS (Discovery Learning Apprenticeship Program 2017-2018)*
- San Boi Ho, B.A., Education
- Nicholas Anthony Vallejo, B.A., Critical Media
- Jacob Huxley Schmieder, B.A., Journalism
- Marissa Wajda, B.A., Business

Undergraduate (MIT, Wellesley)

- Karina Chan (S.B. '16), Computer Science
- Yamile Pariente (S.B. '14), Computer Science
- Noalee Harel (S.B. '15), Computer Science

Anthony Vasquez (S.B. '15), Computer Science

Research Supervision

Ph.D. Students Research Assistant Supervisor (CU Boulder)

- Kristina Stamatis (Ph.D. '21), School of Education, Learning Sciences and Human Development *
- Sari Widman (expected Ph.D. '23), School of Education, Learning Sciences and Human Development *

Masters Students Research Assistant Supervisor (CU Boulder)

- Alexis Newton (M.S. '20), Museum Studies
- Reed Sweetkind (M.S. '19), Museum Studies
- Peter Gyory (M.S. '19), ATLAS *
- Fujiko Yamamoto Robledo (M.S. '19), ATLAS

Masters Students Research Assistant Supervisor (Harvard University)

- Ariana Siegel (Ed. M '16), Harvard Graduate School of Education
- Irene Cho (Ed.M. '16), Harvard Graduate School of Education
- Nicholas Giacobbe (Ed.M. '15), Harvard Graduate School of Education
- Rupal Jain (Ed.M. '15), Harvard Graduate School of Education *
- Ana Medina (Ed.M. '15), Harvard Graduate School of Education
- Erica Rabner (Ed.M. '15), Harvard Graduate School of Education
- Cindy Yang (Ed.M. '15), Harvard Graduate School of Education
- Saskia Leggett (Ed.M. '14), Harvard Graduate School of Education *
- Karina Lin (Ed.M. '14), Harvard Graduate School of Education *
- Richard Liuzzi (Ed.M. '14), Harvard Graduate School of Education *
- Xiaodi Chen (Ed.M. '13), Harvard Graduate School of Education *

Undergraduate (CU Boulder)

- Haley Renee Barnes, B.S., Engineering Plus (Discovery Learning Apprenticeship Program 2021-2022)
- Diego Velazquez, B.S., Chemical and Biological Engineering (Discovery Learning Apprenticeship Program 2021-2022)
- Jose Rogelio Manriquez-Hernandez, B.A., Education
- Anna Howard, B.S., Environmental Engineering * (Discovery Learning Apprenticeship Program 2020-2021)

Committee Member

Ph.D. Student Committees (CU Boulder)

- Adria Marie Padilla-Chavez (expected PhD. '25), School of Education (Dissertation)
- Medjy Pierre-Louis (expected Ph.D. '24), School of Education (Dissertation)
- Casey Hunt (expected Ph.D. '25), ATLAS (Preliminary Exam)
- Erin Robinson (expected Ph.D. '25), Information Science, (Preliminary Exam)
- Barbara Dominici (expected Ph.D. '23), Università di Modena (Thesis Reader)
- Carmelo Presicce (expected Ph.D. '24), Massachusetts Institute of Technology (Qualifying Exam, Dissertation Committee)
- Sari Widman (expected Ph.D. '24), School of Education, Learning Sciences and Human Development (Comprehensive Exam, Dissertation)

- Brandon Grossman (expected Ph.D. '24), School of Education, Learning Sciences and Human Development (Comprehensive Exam, Dissertation)
- Erica Van Steenis (PhD '19), School of Education, School of Education, Learning Sciences and Human Development (Comprehensive Exam, Dissertation)
- Colin Ackerman (PhD '19), Media Studies, (Dissertation)
- Lila Finch (PhD '20), ATLAS (Preliminary Exam)

Masters Students Committees (MIT, Tufts University)

- Thais Xisto (M.S. '23), Media Arts and Sciences, MIT Media Lab
- Lily Gabaree (M.S. '21), Media Arts and Sciences, MIT Media Lab
- Madhu Govin (M.S. '19), Childhood Development, Tufts University

Professional Experience

Lifelong Kindergarten, MIT Media Lab
Research Assistant, Aug 2010 – Aug 2016

- Research with Professor Mitchel Resnick and Lifelong Kindergarten group studying the role of social support in engaging youth creative learning experiences with computing.

Office of STEM Education Partnerships, Northwestern University
Software Developer, Dec 2008 – Jul 2010

- Developed, designed and managed under the guidance of Professor Kemi Jona the technical development of remote online labs or iLabs that allow students to access experimental equipment housed in universities around the world.

Project GUTS, Santa Fe Institute
Regional Coordinator, Jun 2009 – Jun 2010

- Coordinated the expansion of after-school Project GUTS clubs into the Chicago area from New Mexico, where the program originated, under the guidance of Irene Lee.

StarLogo TNG, MIT Scheller Teacher Education Program
Project Manager, Feb 2008 – Oct 2008

- Collaborated with Department of Homeland Security to develop curricula under the direction of Professor Eric Klopfer using Starlogo TNG for middle school students to pursue math, science, and technology.
- Developed and led student workshops and professional development workshops for middle and high school teachers in the greater Boston area.

StarLogo TNG, MIT Scheller Teacher Education Program
Research Assistant, Feb 2006 – Aug 2007

- Created OpenBlocks, an extendable framework for graphical programming systems, allowing any developer to build their own graphical programming environment like Starlogo TNG. Applied framework to EvoBeaker, an educational software for middle school students to study complex biological simulations. Used

by Google to create first version of App Inventor for Android.

- Managed redesign of front-end interface and implementation of Starlogo TNG with team of 4 developers to increase robustness, scalability, performance, and extendibility of software.

Physical Language Workshop, MIT Media Lab

Research Assistant, Jun 2003 – Jan 2004

- Designed and implemented prototypes for Mini, a simple web pixel editor, and Piquant Café, a graphical and interactive chat room, in Java, for online digital design community Open Studio under the direction of Professor John Maeda.

Memberships

- International Society of the Learning Sciences, 2013 – present
- Association for Computing Machinery, 2010 – present
- American Educators Research Association, 2011 - present
- Eta Kappa Nu National Honor Society, 2005
- Sigma Kappa Sorority, 2003 – 2006