DURI LONG

Research Areas: Embodied interaction, human-centered artificial intelligence, design research, computational creativity, co-creative systems, learning sciences and technology, human-computer interaction in public spaces, computer science education, informal learning, AI literacy

EDUCATION

2021 **Georgia Institute of Technology,** Atlanta, GA
Ph.D., Human Centered Computing
Dissertation: "Designing Embodied, Co-Creative AI Literacy Interventions for Public Spaces"
Advisor: Brian Magerko
Committee: Betsy DiSalvo, Ashok Goel, Mike Horn, Hyunjoo Oh
Minor in Design Research; Specialization in Learning Sciences & Technology

2016 **University of North Carolina at Chapel Hill,** Chapel Hill, NC
Bachelor of Science in Computer Science (Distinction and Highest Honors); *second major in Dramatic Art*
Honors Thesis: "Mixed-focus Difficulty-Triggered Collaborative Writing: Interoperable Architecture, Implementation, and Evaluation"
Advisor: Prasun Dewan

APPOINTMENTS

2022-Present **Assistant Professor**
Department of Communication Studies, School of Communication
Courtesy Appointment in Department of Computer Science
Northwestern University

2021-2022 **Research Scientist 1**
Expressive Machinery Lab, Georgia Institute of Technology (Atlanta, GA)
Supervisor: Brian Magerko

2016-2021 **Graduate Research Assistant**
Expressive Machinery Lab, Georgia Institute of Technology (Atlanta, GA)
Advisor: Brian Magerko

2014-2016 **Undergraduate Research Assistant**
Computer Science Department, University of North Carolina at Chapel Hill
Advisor: Prasun Dewan

OTHER PROFESSIONAL EXPERIENCE

2021-2022 **Consultant on AI4K12 Workshop Evaluation**
The Findings Group, LLC
Supervisor: Tom McKlin

2017 **Artist's Residency**
The Children's Museum of Pittsburgh
Collaborators: Anne Fullenkamp, Lacey Murray

PUBLICATIONS

PEER-REVIEWED JOURNAL PAPERS

2022. **Duri Long,** Tom McKlin, Nylah Boone, Dezarae Dean, Mirina Garoufalidis, Brian Magerko. Active Prolonged Engagement EXpanded (APEX): A Toolkit for Supporting Evidence-Based Iterative Design Decisions for Collaborative, Embodied Museum Exhibits. In Proceedings of the ACM on Human-Computer Interaction 6, CSCW1, Article 50, 33 pages.

2021. **Duri Long**, Takeria Blunt, and Brian Magerko. Co-Designing AI Literacy Exhibits for Informal Learning Spaces. In Proceedings of the ACM on Human-Computer Interaction 5. CSCW2 (2021): 1-35.

2016. **Duri Long.** Ritual and contemporary Catalan theater: the work of La Fura dels Baus. In Journal of Catalan Studies (JOCS) 18/19 (2016).

PEER-REVIEWED CONFERENCE PROCEEDINGS[1]

2022. **Duri Long,** Anthony Teachey, and Brian Magerko. "Family Learning Talk in AI Literacy Learning Activities." Conditionally Accepted to the 2022 ACM Conference on Human Factors in Computing Systems (CHI). [top 12.5% of papers]

2021. **Duri Long**, Aadarsh Padiyath, Anthony Teachey, and Brian Magerko. The role of creativity, collaboration, and embodiment in AI learning experiences. In Proceedings of the 2021 ACM Conference on Creativity & Cognition. [23.1% acceptance rate].

2020. Lucas Liu, **Duri Long**, and Brian Magerko. MoViz: A Visualization Tool for Comparing Motion Capture Data Clustering Algorithms. In Proceedings of the 2020 International Conference on Movement and Computing (MOCO).

2020. Meha Kumar, **Duri Long**, and Brian Magerko. Creativity Metrics for a Lead-and-Follow Dynamic in an Improvisational Dance Agent. In Proceedings of the 2020 International Conference on Computational Creativity (ICCC).

[1] In the field of human-computer interaction, archival papers in premiere conferences undergo a highly selective, multi-stage peer review process. These conferences often exceed journals in their selectivity, citations, and impact. Thus in HCI, proceedings publications in these venues are considered on par with publications in a journal.

2020. **Duri Long**, Tom McKlin, Anna Weisling, William Martin, Steven Blough, Katlyn Voravong, and Brian Magerko. Out of Tune: Discord and Learning in a Music Programming Museum Exhibit. In Proceedings of the 2020 ACM Conference on Interaction Design and Children (IDC).

2020. **Duri Long** and Brian Magerko. What is AI Literacy? Competencies and Design Considerations. In Proceedings of the 2020 ACM Conference on Human Factors in Computing Systems (CHI). [24.3%]
Best Paper Honorable Mention [top 5%]
Distributed as a Research Primer by the Center for Innovative Research in Cyberlearning

2019. Lucas Liu, **Duri Long**, Swar Gujrania, and Brian Magerko. Learning Movement Through Human-Computer Co-Creative Improvisation. In Proceedings of the 2019 ACM Conference on Movement and Computing (MOCO).

2019. **Duri Long**, Mikhail Jacob, and Brian Magerko. Designing Co-Creative AI for Public Spaces. In Proceedings of the 2019 ACM Conference on Creativity and Cognition (C&C). [29%]

2019. **Duri Long**, Tom McKlin, Anna Weisling, William Martin, Hannah Guthrie, and Brian Magerko. Trajectories of Physical Engagement and Expression in a Co-Creative Museum Installation. In Proceedings of the 2019 ACM Conference on Creativity and Cognition (C&C). [29%]

2017. **Duri Long**, Mikhail Jacob, Nicholas Davis, and Brian Magerko. Designing for Socially Interactive Systems. In Proceedings of the 2017 ACM Conference on Creativity and Cognition (C&C). [28%]

PEER-REVIEWED LATE-BREAKING & SHORT PAPERS

2018. **Duri Long**, Kun Wang, Jason Carter, and Prasun Dewan. Exploring the Relationship between Programming Difficulty and Web Accesses. In Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC).

2018. **Duri Long,** Hannah Guthrie, and Brian Magerko. Don't Steal My Balloons: Designing for Musical Adult-Child Ludic Engagement. In Proceedings of the 2018 ACM Conference on Interaction Design and Children (IDC).

PEER-REVIEWED WORKSHOP PROCEEDINGS

2019. Swar Gujrania, **Duri Long**, and Brian Magerko. Moving in Virtual Space: A Laban-inspired Framework for Procedural Animation. In Proceedings of the Experimental AI in Games workshop (EXAG) at the 2019 AAAI Conference on Artificial Intelligence

and Interactive Digital Entertainment (AIIDE).

2017. **Duri Long**, Sanjana Gupta, Jessica Brooke Anderson, and Brian Magerko. The Shape of Story: Semiotic Artistic Visualization of a Communal Storytelling Experience. In Proceedings of the Interactive Narrative Technologies workshop (INT) at the 2017 AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE).

2017. Matthew Guzdial, **Duri Long**, Christopher Cassion, and Abhishek Das. Visual Procedural Content Generation with an Artificial Abstract Artist. In Proceedings of the 2017 Computational Creativity and Games Workshop (CCGW) at the 2017 International Conference on Computational Creativity (ICCC).

PEER-REVIEWED POSTER AND DEMO PROCEEDINGS

2023. Trajkova, M., Deshpande, M., Knowlton, A., Monden, C., **Long, D.**, & Magerko, B. (2023, July). AI Meets Holographic Pepper's Ghost: A Co-Creative Public Dance Experience. In *Companion Publication of the 2023 ACM Designing Interactive Systems Conference* (pp. 274-278).

2023. **Duri Long**, Rollins, S., Ali-Diaz, J., Hancock, K., Nuonsinoeun, S., Roberts, J., & Magerko, B. Fostering AI Literacy with Embodiment & Creativity: From Activity Boxes to Museum Exhibits. In *Proceedings of the 22nd Annual ACM Interaction Design and Children Conference* (pp. 727-731).

2021. **Duri Long,** Jonathan Moon, and Brian Magerko. Introducing AI Worksheet Activity. In Proceedings of the Eleventh AAAI Symposium on Educational Advances in Artificial Intelligence (EAAI-21). [Model Assignment].

2021. **Duri Long,** Jonathan Moon, and Brian Magerko. "Unplugged" Semantic Networks and Knowledge Representations. In Proceedings of the Eleventh AAAI Symposium on Educational Advances in Artificial Intelligence (EAAI-21). [Model Assignment].

2020. **Duri Long**, Lucas Liu, Swar Gujrania, Cassandra Naiomi, and Brian Magerko. Visualizing Improvisational Strategies in LuminAI, an AI Partner for Co-Creative Movement Improvisation. Accepted to the 2020 ACM Conference on Movement and Computing (MOCO).

2018. **Duri Long**, Kun Wang, Jason Carter, and Prasun Dewan. Poster: Graphical Visualization of Difficulties Predicted from Interaction Logs. In Proceedings of the 2018 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC).

2015. **Duri Long**, Nicholas Dillon, Kun Wang, Jason Carter, and Prasun Dewan. Interactive Control and Visualization of Difficulty Inferences from User-Interface Commands. In

Proceedings of the 2015 ACM Conference on Intelligent User Interfaces (IUI).

WORKSHOPS ORGANIZED

2023. **Duri Long**, Jessica Roberts, Brian Magerko, Ken Holstein, Daniella DiPaola, and Fred Martin. "AI Literacy: Finding Common Threads between Education, Design, Policy, and Explainability." Workshop, In Proceedings of the 2023 ACM Conference on Human Factors in Computing Systems (CHI 2023). [35%]

2019. **Duri Long** and Max Kreminski. Experimental AI and Games (EXAG). Held at the 2019 AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE).

DOCTORAL CONSORTIA

2017. **Duri Long**. Pre-Learning Experiences with Co-Creative Agents in Museum Environments. Presented at the Doctoral Consortium at the 2017 AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE).

2017. **Duri Long**. Informal Learning with Co-Creative Agents in Museum Environments. Presented at the Doctoral Consortium at the 2017 International Conference on Computational Creativity (ICCC).

OTHER SCHOLARLY PUBLICATIONS

2023. Lin, L., & **Long, D**. (2023, June). Generative AI Futures: A Speculative Design Exploration. In *Proceedings of the 15th Conference on Creativity and Cognition* (pp. 380-383).

2023. Morales-Navarro, L., Kafai, Y. B., Castro, F., Payne, W., DesPortes, K., DiPaola, D., **Long, D**., … & Vakil, S. (2023). Making Sense of Machine Learning: Integrating Youth's Conceptual, Creative, and Critical Understandings of AI. n *Proceedings of the 17th International Conference of the Learning Sciences-ICLS 2023*. International Society of the Learning Sciences.

2023. **Duri Long**. "Conducting Remote Design Research on Embodied, Collaborative Museum Exhibits." Case Study, In Proceedings of the 2023 ACM Conference on Human Factors in Computing Systems (CHI 2023). [30%]

2022. Glenda Stump; Benjamin Walsh; Helen Zhang; Irene Lee; Grace C. Lin; Eryka Wilson; **Duri Long**; Tesha Sengupta-Irving. "Aspiring for Equity: Perspectives from Design of AI Education." International Society of the Learning Sciences (ISLS) 2022 Symposium Presentation.

2021. **Duri Long**, Jonathan Moon, Brian Magerko. Unplugged Assignments for K-12 AI Education. AI Matters, Volume 7, Issue 1.

2021. **Duri Long**. Designing Embodied, Co-Creative AI Literacy Interventions for Informal Learning Spaces. Ph.D. dissertation in the School of Interactive Computing at the Georgia Institute of Technology.

2020. Brian Magerko and **Duri Long**. Why Don't Computers Improvise With Us? Accepted to the Workshop on Artificial Intelligence for HCI at the 2020 ACM Conference on Human Factors in Computing Systems (CHI). [Extended Abstract]

2018. **Duri Long**, Astrid Bin, and Brian Magerko. Parent-Child Musical Co-Creation with Tangible and Embodied Interfaces. Presented at the Rethinking Children's Co-Creation Processes beyond the Design of TUIs Workshop at the 2018 ACM Conference on Interaction Design and Children (IDC). [Extended Abstract]

2017. **Duri Long**, Mikhail Jacob, Dor Hananel, and Brian Magerko. LuminAI: A System for Collaborative Movement Improvisation. Presented at the How Can Computers Support, Enrich, and Transform Collaborative Creativity? workshop at the 2017 ACM Conference on Creativity and Cognition (C&C). [Extended Abstract]

2015. **Duri Long**. Convergence of Ecology and Performance in Druid Theater's DruidShakespeare (2015). Presented at the 2015 American Society for Theater Research's (ASTR) Working Session on Ecology and/of/in Performance. [Paper]

EXHIBITIONS & PERFORMANCES

2019. Richard Savery, **Duri Long**, Brian Magerko, Nick Sinclair, Raianna Brown, and Antavius Ellison. *Sound Happening*. Performance and interactive art installation. ACC Creativity & Innovation Festival at the Smithsonian, Washington D.C.

2018. **Duri Long** and Brian Magerko. *LuminAI*. Interactive art installation. CODAME Art Tech Festival, San Francisco.

2017. **Duri Long**, Mikhail Jacob, and Dr. Brian Magerko. *LuminAI.* Interactive art installation. ACC Creativity & Innovation Festival at the Smithsonian, Washington D.C.

2017. **Duri Long**, Sanjana Gupta, Jessica Brooke Anderson, and Dr. Brian Magerko. *The Shape of Story.* Interactive art installation. Eyedrum Art & Music Gallery, Atlanta.

GRANTS AWARDED

2023. Computational Embodiments: Cultures of AI, Computational Media and Performance Art," **PIs:** Eliza Bent, Melissa Blanco, Thomas DeFrantz, Darren Gergle, **Duri Long**, Ozge Samanci, Northwestern School of Communication, $50,000.

- **Role:** Co-PI and co-author of proposal.

2022. "Fostering AI Literacy through Embodiment and Creativity across Informal Learning Spaces," PI: Magerko, B. Co-PI: **Long, D.**, Roberts, J. DRL 2214463, $1.7M.

- **Role:** Co-PI and co-author of proposal.

2021. "Participatory Sensemaking with Embodied Co-Creative Agents," PI: Magerko, B. Co-PI: Knowlton, A.. Mind, Machine, and Motor Nexus (M3X). National Science Foundation. DRL, $573,561.

- **Role:** Co-author of proposal and research team member.

2021. Supplemental funding for "Collaborative Research: Mixing Learning Experiences for Computer Programming Across Museums, Classrooms, and the Home Using Computational Music," PI: Magerko, B. Co-PI: Freeman, J.. Advances in Informal Science Learning. National Science Foundation. DRL-1612644, $99,038. (Original grant: $2,517,690).

- **Role:** Co-author of supplemental funding proposal and research team member.

2018. "Collaborative Research: Engaging High School Students in Computer Science with Co-Creative Learning Companions," PI: Magerko, B. Co-PIs: Freeman, J.. Division of Research on Learning. National Science Foundation. DRL-1814083, $2,119,822.

- **Role:** Assisted in proposal writing.

FELLOWSHIPS, HONORS, & AWARDS

2021 Nominated by Georgia Tech School of Interactive Computing for the ACM dissertation award and the AAAI/SIGAI dissertation award (one dissertation chosen from school)

2020 Finalist, Foley Scholars Awards

2020 Best Paper Honorable Mention (top 5% of submissions), CHI 2020

2018 NSF Graduate Research Fellowship Program Honorable Mention

2018 Grad Cohort for Women Travel Funding, San Francisco, CRA-WP (~$1500)

2017 First Place in DanceX Turing Test Competition for the Creative Arts ($500)

2017 Doctoral Consortium Funding, AIIDE 2017 ($1500)

2017 Doctoral Consortium Funding, ICCC 2017 ($400)

2017 Grad Cohort for Women Travel Funding, Washington D.C., CRA-WP (~$1500)

2016 President's Fellowship, Georgia Institute of Technology ($22,400)

2014 Virgil and Marion Lee Fellowship, UNC Department of Dramatic Art ($1000)

2014 Phi Beta Kappa

TEACHING EXPERIENCE

COURSES TAUGHT

2023 Interactive Museum Exhibit Design
Northwestern University
Instructor of Record, Undergraduate Course

2023 Qualitative Research Methods for Technology Use & Design
Northwestern University
Instructor of Record, Graduate Seminar

2022 Speculative Design for Human-AI Communication
Northwestern University
Instructor of Record, Graduate Seminar

2019 Educational Technology
Georgia Institute of Technology
Instructor of Record, Undergraduate Course

2018 Human Centered Computing Seminar
Georgia Institute of Technology
Co-Lead

TEACHING ASSISTANT

2021 Educational Technology (OMSCS)
Georgia Institute of Technology Online Masters in Computer Science (OMSCS)
Graduate Teaching Assistant with Dr. David Joyner

2019 Computing Ethics and Society
Georgia Institute of Technology
Graduate Teaching Assistant with Dr. Chaohua Ou

2018 Computing Ethics and Society (Honors)
Georgia Institute of Technology
Graduate Teaching Assistant with Dr. Amy Bruckman

2015 Foundations of Programming
UNC-Chapel Hill
Undergraduate Teaching Assistant with Dr. Prasun Dewan

2015 Introduction to Directing
UNC-Chapel Hill
Undergraduate Teaching Assistant with Dr. Karen O'Brien

TALKS & GUEST LECTURES

2023 *Fostering AI Literacy with Creative Learning Experiences*. Invited Talk, University of Tokyo.

2023 *Fostering Public Understanding of AI through Education and Design.* Invited Talk, DUB Seminar, University of Washington.

2023 *Creative Practice, Robotics and Artificial Intelligence: The Cultural Impact of Collaborating with Non-Humans*, Invited Panel Participant, Robots, AI and Culture Symposium, The University of Sydney.

2022 *The Importance of AI-Literacy for AI in Education*. Invited Panel Participant, Empowering Learners.AI Conference, Arizona State University.

2022 *Fostering Human-Machine Understanding through Education & Design,* Invited Talk, Department of Computer Science, Northwestern University.

2022 *Fostering Public Engagement with AI through Creativity,* Lambert Conference on the Future of Human-Computer Interaction + Design, Northwestern University.

2022 *Fostering Human-Machine Understanding through Education & Design,* Invited Talk, Department of Learning Sciences, Georgia State University.

2022 *Fostering Human-Machine Understanding through Education & Design,* Invited Talk, Department of Communication Studies, Northwestern University.

2022 *Fostering Human-Machine Understanding through Education & Design,* Invited Talk, Department of Computer Science, Emory University.

2022 *Fostering Human-Machine Understanding through Education & Design,* Invited Talk, School of Interactive Games and Media, Rochester Institute of Technology.

2022 *Fostering Human-Machine Mutual Theory of Mind through Education & Design,* Invited Talk, Department of Computer Science, Virginia Tech.

2022 *Fostering Human-Machine Mutual Theory of Mind through Education & Design,* Invited Talk, iSchool, University of Texas at Austin.

2021 *Fostering Human-Machine "Mutual Theory of Mind" through Education and Design,* Digital Media Talks Series, Georgia Tech.

2021 *Fostering Public Understanding of AI through Education and Design.* GVU Brownbag Talk, Georgia Tech.

GUEST LECTURES

2022 *Fostering Human-Machine Understanding through Education & Design,* Technologies to Optimize Human Learning, University of Michigan.

2022 *Fostering Human-Machine Understanding through Education & Design,* Foundations of Educational Technology, Georgia Tech.

2021 *Introduction to AI.* Girls in AI Global Hackathon, San Francisco.

2020 *Designing Co-Creative AI for Public Spaces*. Designing for Curiosity, Georgia Tech.

2019 *Net Neutrality*. Computing Ethics and Society, Georgia Tech.

2018 *Visual and Statistical Thinking*. Computing Ethics and Society, Georgia Tech.

2018 *Work and Wealth*. Computing Ethics and Society, Georgia Tech.

2017 *LuminAI*. Intelligent User Interfaces, UNC-Charlotte.

2015 *Terminus*. Contemporary Irish Drama, UNC-Chapel Hill.

SERVICE

EXTERNAL SERVICE

2023	Sustainability Chair, Interaction Design for Children
2023-2024	Papers Co-Chair, ACM Creativity and Cognition
2021	Associate Chair, "Learning, Education, and Families" subcommittee for ACM CHI 2022
2021-2022	Posters and Demos Co-Chair, Creativity and Cognition
2021	Session Chair, "Creative Touch," Creativity and Cognition
2019	Panel Moderator, "Playable Experiences," AIIDE
2019	Session Chair, "Sound and Performance," Creativity and Cognition
2019	Student Volunteer, ICCC
2017	Student Volunteer, Creativity and Cognition

SERVICE TO NORTHWESTERN UNIVERSITY

2023	Coordinator for HCI + Design Thought Leader Dialogue on AI Education
2022-Present	AI@NU Planning Committee
2022-2023	Mancosh Pathways to the Professoriate Search Committee
2022-2023	Technology & Social Behavior PhD Student Recruitment Committee

SERVICE TO GEORGIA TECH

2016-2019	GVU Research Showcase Demonstration/Poster Presenter
2018	Human Centered Computing PhD Seminar Co-Lead

EXTERNAL REVIEWING & PROGRAM COMMITTEE (PC) MEMBERSHIP

Symposium on Learning, Design, and Technology, PC, 2023
IDC, 2023
EAAI Papers, PC, 2023
EAAI Model Assignments, PC, 2022
Creativity & Cognition, 2021
Evo* PC, 2021
CHI 2023, 2021, 2020, 2019 (highly useful), 2018
ICCC 2021 (PC), 2020 (PC), 2017
DIS 2020
IDC 2020, 2018
SIGCSE 2020, PC
CogSci 2019
EXAG 2019, PC

STUDENT MENTORING

Northwestern University

Taewook Kim, PhD student, Technology & Social Behavior
Lauren Lin, BS-Learning Sciences, Data Science, Human-Computer Interaction
Lauren Bichelmeir, BS-Computer Science & Design
Samnang Nuonsinoeun, BS- Manufacturing and Design Engineering, BS-Computer Science
Katherine Hancock, BS-Manufacturing and Design Engineering
Jasmin Ali-Diaz, BS-Manufacturing and Design Engineering
Sophie Rollins, BS/MS-Computer Science
Grace Shao, BA-Communication Studies

Georgia Tech

Sathvika Dannapaneni, BS-Computer Science
Jiaxi Yang, MS-HCI
Aadarsh Padiyath, MS-Interactive Intelligence
Anthony Teachey, BS-Computational Media
Swar Gujrania, MS-HCI
Lucas Liu, BS-Computer Science
Meha Kumar, BS-Computer Science
Cassandra Naiomi, BS-Computational Media
Jonathan Moon, BS-Industrial Design
Dezarae Dean, BS-Psychology
Katlyn Voravong, BS-Neuroscience
Nylah Boone, BS-Neuroscience
Skyler Tordoya Henckell, BS-Psychology
Mirina Garoufalidis, BS-Computational Media
Hannah Guthrie, BS-Computer Science
William Martin, BS-Psychology
Steven Blough, BS-Psychology
Bilal Mawji, BS-Computer Science
Dor Hananel, BS-Computer Science
Idan Hananel, high school student
Nick Sinclair, BS-Industrial Design
Vanya Padmanabhan, BS-Industrial Design
Alexis Perkins, BS-Industrial Design
Ju-Hwan Lim, BS-Computer Science
Chelsi Cocking, BS-Computational Media