Computing Education Researcher

aecobo@gmail.com | www.alexiscobo.com | Boynton Beach, FL

SUMMARY

As a former K-12 instructional leader, my research leverages mixed methods to address persistent barriers to broaden participation Computer Science (CS) education. I investigate high-quality teacher professional development, cultivate student and teacher agency, and challenge biased beliefs to inform CS policies and inspire positive outcomes for the widest range of learners.

RESEARCH EXPERIENCE

University of Florida, College of Education, Postdoctoral Researcher

Jan 2025 - Present

- Designed, facilitated, and evaluated national in-service teacher micro-credentials focusing on UDL, HLPs, and accessibility in K-12 CS and Al education.
- Investigated accessibility in K-12 block-based programming languages through targeted research.
- Provided key support to a statewide K-12 Al Task Force, fostering collaboration with state, industry, and district partners for Al guidance.

CSforALL, Research Associate

June 2023 - Dec 2024

- Directed NSF-funded research and evaluation projects as Principal Investigator, including grant writing and securing additional funding for CSforALL initiatives.
- Managed program effectiveness and implemented rigorous methodological analysis to ensure valid, reliable, transparent, and accessible findings.

Creative Technology Research Lab, University of Florida,

Fall 2020 - Fall 2023

Graduate Research Associate: Member of an interdisciplinary research lab, and GRA on several NSFfunded projects with the following responsibilities:

- Curated website resources, developed assets, and disseminated project learnings via website, social media, and conference presentations
- Provided technical assistance across Research Practice Partnership (RPP) collaborations.
- Developed survey instruments and conducted descriptive statistical analysis.
- Conducted mixed-method data analysis, including qualitative design on preservice teacher lesson plans and descriptive statistics on pre/post intervention surveys.

EDUCATION

University of Florida, Gainesville, FL

Aug 2020 - Dec 2023

Doctor of Education

- Relevant coursework in Ed.D. Curriculum & Instruction in Educational Technology
- Dissertation Title: Creating Pathways to Inclusion in K-12 Computer Science Education: A Case Study
 on the Scratch Educator Meetup

 Aug 2000 2004

Jewish Theological Seminary of America, New York, NY

William Davidson Graduate School of Jewish Education

• Relevant coursework in Master of Arts in Jewish Day School Education

University of Florida, Gainesville, FL

Aug 2005 - May 2007

• Relevant coursework in Bachelor of Arts in Jewish Studies

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AC EDUCATION CONSULTING, LLC

Raspberry Pi Foundation

May 2025

• Commissioned Author: <u>Universal Design for Learning: Reaching All Learners</u>

Computer Science Teachers Association

April 2025 - Present

- Provide project management, research analysis, and writing on CSTA Teacher Landscape Survey in partnership with Kapor Center and AIICE Alliance Affiliates.
- Plan and implement study to investigate elementary teacher support integrating CS after professional development as part of EIR funded project from US Department of Education.

PROFESSIONAL APPOINTMENTS

EDSAFE Alliance Jan 2025 - Present

Women in Al Fellow

 Championed ethical Al development as a year-long fellow, influencing policy, research, and practical applications.

Computer Science Teachers Association

Policy Committee Co-Chair, 2023-2025

- Vet, develop, and adopt a set of identity-inclusive and data driven CSTA endorsed policy recommendations.
- Design and support a CS teacher toolkit for CSTA members and Chapter Leaders to advocate effectively for policies set at the local and state level.

K-12 Standards Writing Advisory, 2024 - Present

• Provide technical assistance to inform the overall revision process and direction, as well as offer regular feedback and resolve outstanding questions on CSTA K-12 standards revisions.

GBH Kids, PBS Kids, and Pipeline Studios

Spring 2021 - Spring 2022

Educational Advisor

- Review television scripts for universal design and culturally relevant computational thinking content for PreK-1st grade audience throughout character/plot development on production of Work-It Out WOMBATS!
- Show credits: "Crab Roll" & "Show & Smell"

Al4K12 Fall 2019 - Spring 2023

Grade-band 3-5 Working Group

- Provided technical assistance for the drafting, editing, and revisions of the grade band 3-5 guidelines of the Five Big Ideas in Al.
- Support social media, cross-partnership promotion, and activities development

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K-12 TEACHING EXPERIENCE

Director of Educational Technology & Integration

June 2021 - June 2023

Donna Klein Jewish Academy, Boca Raton, FL

- Managed daily IT operations and strategic planning for K-12 infrastructure.
- Pioneered the development and implementation of a K-12 curriculum spanning Educational Technology, Computer Science, and Innovation.
- · Oversaw teaching faculty members, including professional development and performance.

Senior Curriculum Developer

Oct 2020 - Feb 2021

Code Ninjas, LLC, Remote

• Designed auxiliary curriculum for programs such as summer camps for 300 franchisees in US/Canada/UK.

PreK-5 Computer Science & Technology Specialist

Aug 2015 - Oct 2020

Pine Crest Preparatory School, Boca Raton, FL

- Developed and delivered a comprehensive PreK-5 Computer Science and Educational Technology curriculum.
- Guided faculty in integrating CS and digital fluency skills into diverse core subjects.

PreK-5 Academic Technology Specialist

Aug 2012 - June 2015

North Broward Preparatory School, Coconut Creek, FL

- Developed and delivered a comprehensive educational technology curriculum from PreK-5.
- Assisted the Director of Educational Technology in implementing teacher professional development.

Media Center & Kindergarten Teacher

Aug 2010 - June 2012

Donna Klein Jewish Academy, Boca Raton, FL

- Aligned K-4th grade curriculum to AASL Standards.
- Piloted iPad curriculum to support technology integration from K-4
- Delivered Kindergarten instruction.

5th Grade English & History Teacher

Jun 2007 - Jun 2008

Donna Klein Jewish Academy, Boca Raton, FL

Implemented an interdisciplinary curriculum for 5th grade students.

UNIVERSITY TEACHING EXPERIENCE

Instructor of Record - University of Florida, College of Education, Gainesville, FL

Fall 2025

EDA6271 - Technology Leadership for School Leaders

 Deliver asynchronous instruction master level students who wish to learn educational theory to navigate the technology landscape addressing data privacy, sustainability, digital literacy, and and change theory in K-12 settings.

EDG6807 - Issues and Trends in K-12 Computer Science Education

• Support the asynchronous and synchronous instruction for doctoral students exploring current issues and trends impacting K-12 CS education.

Guest Lecturer - Mercer University, College of Education, Atlanta, GA

Spring 2025

EMAT621 - Curriculum and Instruction in Elementary Education

- Session Title: Elementary Educational Technology: Reaching All Learners
- Engaged students in introduction to UDL, HLPs, and acessibility in K-5 general education

Guest Lecturer - University of Florida, College of Education, Gainesville, FL

Spring 2021

EME4401 - Integrating Technology into Elementary Education

- Session Title: Introduction to Computational Thinking
- Provided students with interactive overview of computation thinking in the context of K-5

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PUBLICATIONS

- Cobo, A. & Yadav, A. (2025, February 26 March 1). Nudging the Field Towards Justice-Oriented Goals: Committing to CS Education. *In Proceedings of the 56th ACM Technical Symposium on Computer Science Education V2* (SIGCSE 2025), February 26-March 1, 2025, Pittsburgh, PA, USA.
- Yadav, A., Cobo, A., & DeLyser, L. (2025, April 23-27). Catalyzing the Computer Science Education Community to Commit to Justice. [Paper Session] American Educational Research Association (AERA) annual conference, Denver, CO, United States.
- Bennett, A., Yan, W., Cobo, A., & Israel, M. (April 23 27). A Cross-Case Analysis of Teachers with Experience Instructing Students with Disabilities in Computer Science Education [Individual Poster Session] American Educational Research Association (AERA) annual conference, Denver, CO, United States.
- Cobo A., Wortel-London, S.B., & DeLyser L. (2024, May). A Field Catalyst Approach to Systems Change in K-12 CS Education. *In Proceedings of the 2024 RESPECt Annual Conference* (RESPECT 2024), May 16-17, 2024, Atlanta, GA, USA. ACM, New York, NY, USA, 5 pages.
- Perkins, A., Cobo A., Wortel-London, S.B., Jones, D.L., & James, D.E. (2024, May). From State Legislation to Implementation: Moving Towards Justice-Centered Computing. *In Proceedings of the 2024 RESPECT Annual Conference* (RESPECT 2024), May 16-17, 2024, Atlanta, GA, USA. ACM, New York, NY, USA, 5 pages.
- Yan, W., Bennett, A., **Cobo, A.**, & Israel, M. (2024, March). A Cross-Case Analysis of Experienced Educators in CS Inclusion. *In Proceedings of the 55rd ACM Technical Symposium on Computer Science Education V. 2* (pp. 1863-1864).
- Cobo, A., Wortel-London, S.B., DeLyser, L., & James, D. E. (2024, March). Small steps, big progress: Analyzing district led goals to advance CS education. *In Proceedings of the 55rd ACM Technical Symposium on Computer Science Education V. 1* (pp. 221-226).
- Israel, M., Chandler, L., **Cobo, A**., & Weisberg, L. (2023). Increasing access, participation, and inclusion within K-12 CS education through Universal Design for Learning and High Leverage Practices. In S. Sentence & N. Howard (Eds.), Computer science education (2nd ed.). Bloomsbury Publishing.
- Yadav, A., Israel, M., Bouck, E., Cobo, A., Samuels, J. (2022). Achieving CSforALL: Preparing special education pre-service teachers to bring computing to students with disabilities. *In Proceedings of the 53rd ACM Technical Symposium on Computer Science Education* (pp. 196-201).

PRESENTATIONS

- Cobo, A. & Thompson, T. (2025, July 16). Moving Beyond a Mandate: A Conversation on Accessibility in Higher Education [Invited Talk: Plenary Session]. 2025 RESPECT Annual Conference, July 14-17, Newark, NJ, USA.
- Fugate, R. & Cobo, A. (2025, July 10). From Awareness to Action: Teaching Accessibility and Inclusion as Core CS Competencies [Poster Session]. Computer Science Teachers Association (CSTA), annual conference, Cleveland, OH, United States.
- Thigpen, L., **Cobo, A.**, Flaherty, M., Master, A., Patel, J., & Yadav, A. (2025, March). Championing Computer Science in the Early Elementary Grades [A Panel Discussion]. *The 56th ACM Technical Symposium on Computer Science Education* (SIGCSE 2025), February 26-March 1, 2025, Pittsburgh, PA, USA.

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PRESENTATIONS CONTINUED

- Cobo A. (2024, September). Building Professional Learning Communities for K-12 CS Educators to Support Accessibility Practices [Research Panelist]. AccessComputing Workshop - CMD-IT/ACM Richard TAPIA Celebration of Diversity in Computing Conference, San Diego, CA, United States.
- Cobo, A., Egwuekwe, M., McGill, M., & Thigpen, L. (2024, July). Moving Tennessee Beyond Access: How SCRIPT Informs and Impacts Decisions Made in K-12 CS Education [Structured Poster Session]. National Science Foundation CISE-CSforALL RPP PI Meeting, Las Vegas, NV, United States.
- Cobo, A., Mosley, R., Tsan, J., & Hubbard-Cheuoua, A. (2024, July). The CSforALL Alliance: Catalyzing the Field to BPC Through Member Actions [Structured Poster Session]. National Science Foundation CISE-CSforALL RPP PI Meeting, Las Vegas, NV, United States.
- Cobo, A., Tanimoto, L., & De Jesús, S. (2024, July). Building a Chapter Advocacy Leader Toolkit. [Hands on Workshop]. Computer Science Teachers Association (CSTA), Annual Conference, Las Vegas, NV, United States.
- Isreal, M., & Cobo, A. (2023, December). Strategies for including students with disabilities in K-12 CS education. [Hands on Workshop]. Computer Science Week Celebration. Miami Computer Science Teachers Association, Miami, FL.
- Edelman, J., Cobo, A., Colley, C., Mckinley, J. (2023, July 12). Cultivating a creative coding community with Scratch educator meetups [Mini session]. Computer Science Teachers Association (CSTA) annual conference, Virtual Event.
- Israel, M., Li, W., Francsali, C., Bennett, A., Xu, Y., **Cobo, A.** (2023, May 4). Participation of students with disabilities in K-12 computer science education [Virtual Paper]. American Educational Research Association (AERA) annual conference, Virtual Event.
- Israel, M., Cobo, A., Chandler, L., Salgado-Ramirez, A., Bennett, A., Weisberg, L. (2023, April 15).
 Scaffolding through multiple entry points to K-8 computer science participation and inclusion [Structured poster session]. American Educational Research Association (AERA) Annual conference, Chicago, IL, United States.
- Bennett, A., Israel, M., Cobo, A., Delgado, J. (2023, March). Using the UDL for computer science interactive table [Asynchronous poster session]. Universal Design for Learning Implement and Research Network (UDL-IRN), Virtual Event.
- Cobo, A., & Israel, M. (2023, February 2). Increasing participation in K-12 CS education through UDL [Online Workshop]. Computer Science Teachers Association (CSTA) Inland Empire, Virtual Event.
- Israel, M., & Cobo A., (2022, December 10). Strategies for including students with dis/abilities in K-12 CS education [Hands-On Workshop]. Computer Science Teachers Association (CSTA) computer science education week, Miami, FL, United States.
- Israel, M., Cobo A., Bennett A., Barrett, J. (2022, October 29). Increasing participation in K-12 CS education through UDL [Structured mini-session]. Computer Science Teachers Association (CSTA) how we teach CS, Virtual Event.
- Cobo, A., Bennett, A., Lash, T., Israel, M., Bergeron, L. (2022, July 17). Disabilities Inclusion in CSforALL [Hands-On Workshop]. Computer Science Teachers Association (CSTA) annual conference, Chicago, IL, United States.
- Israel, M., **Cobo A**., Yan, W., Liu R., & Chandler, L. (2022, April 25). Developing scaffolding debugging strategies to support metacognition during programming [Symposium session]. American Educational Research Association (AERA) annual meeting, San Diego, CA, United States.

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PRESENTATIONS CONTINUED

- Cobo, A., Bennett, A., Chandler, L., Ramirez-Salgado, A., Weisberg, L., Williams, J. (2022, April 2).
 Strategies for using Universal Design for Learning (UDL) in K-8 CS [Breakout session]. Computer Science Teachers Association (CSTA) equity action summit, Virtual Event.
- Cobo, A. (2021, July 14). No more silos: CS in core curriculum with PBL [Hands-On Workshop]. Computer Science Teachers Association (CSTA) annual conference, Online due to COVID-19.
- Cobo, A., Lash, T., Israel, M. (2021, March 10). Strategies for Using Universal Design for Learning (UDL) in Elementary CS to engage all learners [Breakout session]. Computer Science Teachers Association (CSTA) equity action summit, Virtual Event.
- Sedgwick, V., Powers, K., **Cobo, A**. (2021, January 16). Integrating AI in the K-5 classroom [Breakout session]. Computer Science Teachers Association (CSTA) future of CS: Emerging concepts in CS education summit, Virtual Event.
- Cobo, A. (2020, September). Debugging: A practitioner's perspective. The Lightning Debugging Symposium: A Conversation About Research and Practice in K-12 CS Education, Creative Technology Research Lab, University of Florida.
- Gabaree, L., Rusk, N., Lee, M., Cobo, A., Trapp, J. (2019, June 24). Scratch stories: Educators share their experiences and strategies [Panel Discussion]. International Society for Technology Education (ISTE) annual conference, Philadelphia, PA, United States.
- Cobo, A. (2018, July). Scratching the Surface with Project-Based Learning [Ignite Talk]. Scratch biennial conference, Massachusetts Institute of Technology, Boston, MA, United States.

SERVICE AND OUTREACH

Peer Reviewer Present

- National Science Foundation
- Journal of Research on Technology Education
- Association of Computing Machinery (ACM) Transactions on Computing Education
- EAAI K-12 Paper Track
- ACM SIGCSE Reviewer
- ACM RESPECT Reviewer
- University of Florida Journal of Undergraduate Research
- Scratch Conference Proposals
- CSTA Conference Proposals

ACM RESPECT Conference

July 2025

Accessibility Chair

Scratch Foundation

Fall 2018 - Fall 204

- Creating Pathways Scratch Educator Meetup Organizer
- South Florida Scratch Educator Meetup Organizer

Pine Crest Preparatory School

Aug 2015 - Oct 2020

- First Lego League Robotics Coach & Tournament Organizer
- Innovation Institute Professional Development Facilitator
- Google Summit Chair

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AWARDS AND HONORS

- 1. STARS Broadening Participation in Computing (BPC) Research Scholar, 2023 2024
- 2. Computing Research Association (CRA) Grad Cohort for Women, 2022
- 3. Mentor Award, South Florida First Lego Robotics League, 2018
- 4. Growing Our Academic Leaders (GOAL) Cohort, Pine Crest Preparatory School, 2017-2018
- 5. University Scholars Program, University of Florida (\$1000), 2003-2004

PROFESSIONAL AFFILIATIONS

- Association for Computing Machinery (ACM), 2022 Present
 - SIGCSE, 2024 Present
- American Educational Research Association (AERA), 2023 Present
- Council for Exceptional Children (CEC), 2022 Present
- Computer Science Teachers Association (CSTA), 2015 Present
- International Society for Technology in Education (ISTE), 2010 Present