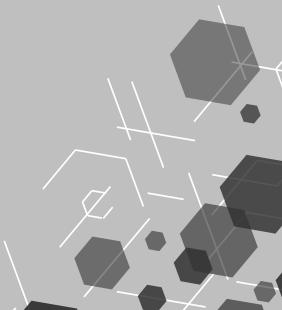


2022 YEAR IN REVIEW

WWW.CSFORALL.ORG @CSFORALL INFO@CSFORALL.ORG

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CSFORALL 2022: A YEAR OF GROWTH

CSforALL began as a startup prioritizing equity in computer science education. We were focused on the problem of equity in education, especially related to CS education. Using adaptable methods, we reinvented ourselves to expand access and build capacity at all levels, evolving through membership, programs, outcomes, messaging, commitments, and partnerships.

I'm proud to say that 2022 represented a year where we grew out of the early stage, and into the beginning of a growth stage. During 2022, we created clarity around who CSforALL is built to serve, and how we fit in the ecosystem. We reimagined our programs, and listened to community feedback, and we built new and authentic partnerships to power both our national network and community-focused efforts.

In order to truly achieve our mission, vision, and values around equity, we must act at each step with intentionality and clear understanding of the impact of our work. During 2022, we demonstrated this intentionality through program and team growth, and our pursuit of desired impacts.

CSforALL is proud to have applied for and been awarded a National Science Foundation grant to transition our membership to a broadening participation in computing alliance. This intentional choice will both provide significant resources to the execution of a new structure of membership at CSforALL, but also make clear our commitment to inclusive classrooms where diversity is the norm and equity a baseline for success - not the finish line.

CSforALL expanded our program portfolio to include the Accelerator program, welcoming six community teams to the first cohort. The program focuses on community partnerships, to raise awareness for the need for CS education, and build capacity in local leaders and institutions to work collectively to meet the needs of all students. Additionally, existing programs refined and expanded approaches to supporting school districts through SCRIPT, growing our facilitator cohort and enacting a certification process for facilitators to ensure consistency and quality for all district participants.

This growth in impact and footprint would not have been possible without intentional investment in our team and partnerships. CSforALL partnered with more than 500 individuals, foundations and corporations who support systemic change within CS Education to best invest in the next generation of deep problem solvers. CSforALL added nine new staff members, some in existing roles, and others in new roles designed specifically to bring expertise in a particular area to our approach.

As Executive Director of CSforALL, I'm excited to share our success and look forward to 2023.

Sincerely, Leigh Ann DeLyser Executive Director, CSforALL

A WORD FROM OUR BOARD CHAIR, CHAD WOMACK

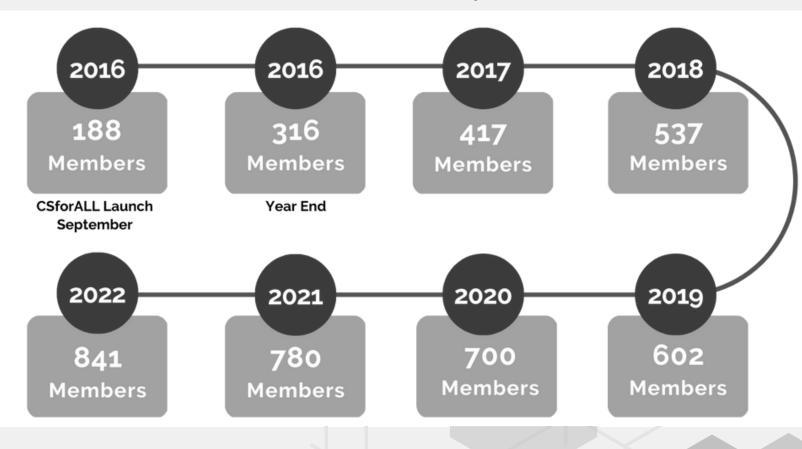
It is an honor to serve as Chair of the Board of CSforAll and support the partnership with UNCF. At UNCF, we are committed to supporting the educational aspirations of African American students pursuing careers in the tech-industry and computational sciences, and building institutional capacity for computer science education at historically black colleges and universities (HBCUs). We strongly believe in the work that CSforAll is doing to promote equity and inclusion in computer science and supporting growth opportunities in computer science education for K12 students nationwide.

> **Chad Womack, PhD** CSforALL Board Chair



CSFOR MEMBER	ALL THE CSED COMM NATIONAL LEVELS IMPACT THAT'S SUSTAINABLE IN	UNITY AT LOCAL, REGIONAL AND S TO DELIVER GREATER COLLECTIVE MEASURABLE, DATA DRIVEN AND ADVANCING CS EDUCATION FOR.
	Teacher Preparation Pro 30 Fund 58 School Districts & 212 Content pro Service Prov	ers Researchers 135 Education Associations
Education Associations School Distr	icts Funders Teacher Preparations	Out of School Content Providers
Collaborate	Learn	Engage

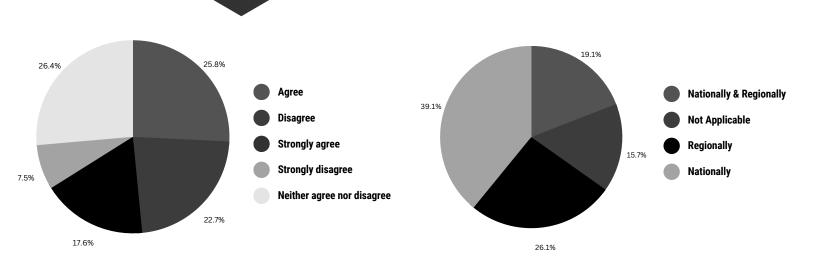
In 2022, CSforALL welcomed over 60 new members to our growing Membership community. Our Membership Program has evolved to provide an increasing amount of meaningful connectivity, encouraging alignment, collaboration, and resource sharing among our members. CSforALL is proud to support and elevate the work of our members within the CSforALL community.



CSFORALL MEMBERSHIP

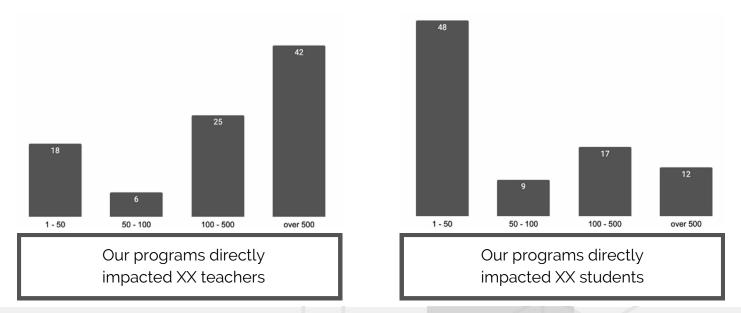
MEMBERSHIP AIMS TO ENGAGE, GROW AND CONNECT THE CSED COMMUNITY AT LOCAL, REGIONAL AND NATIONAL LEVELS TO DELIVER GREATER COLLECTIVE IMPACT THAT'S MEASURABLE, DATA DRIVEN AND SUSTAINABLE IN ADVANCING CS EDUCATION FOR.

2022 Annual Member Survey



CSforALL has asked my organizations to share work on media, social media communications and/or events.

CSforALL has provided the opportunity to connect with stakeholders in my state or region in virtual or in-person convening(s).

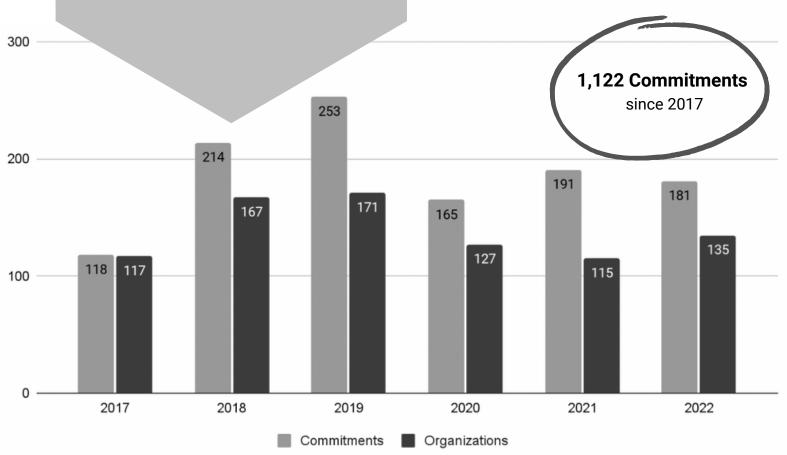




In 2022, CSforALL was awarded a \$2.2 million grant from NSF to encourage and expand opportunities in computing education participation as a BPC Alliance.

CSFORALL COMMITMENTS

SINCE 2017, CSFORALL HAS CREATED A CALL TO ACTION FOR ORGANIZATIONS TO SUBMIT COMMITMENTS TOWARD THE GOAL OF IMPACTING RIGOROUS, INCLUSIVE AND SUSTAINABLE COMPUTER SCIENCE FOR ALL STUDENTS.



2022 CSforALL Commitments

70 Build Capacity 84 Increase Equitable Access and Outcomes 6 Racial Equity 21 Raise Awareness

181 Commitments **135** Organizations



Game Changers in CS Education

2022 CSforALL Summit







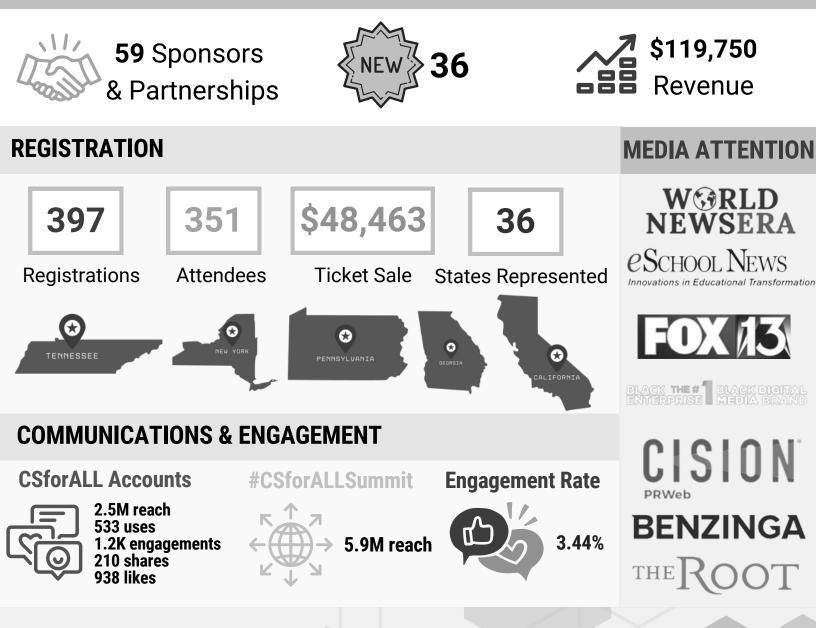


74 SPEAKERS

80% OF WHICH ARE NEW

SPONSORS AND PARTNERS

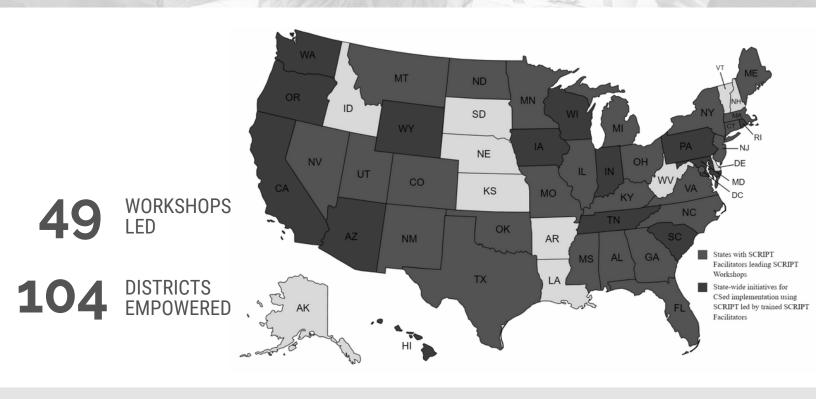
Sponsorship, Exhibitors and In-Kind Support



SCRIPT

STRATEGIC RESOURCE AND IMPLEMENTATION PLANNING TOOLS FOR SCHOOLS AND DISTRICTS DESIGNED TO ESTABLISH ACTIONABLE K-12 CSED PATHWAYS THAT ARE INTENTIONAL TO THE NEEDS OF EACH UNIQUE COMMUNITY.

The CSforALL SCRIPT Community saw a re-emergence of local movements in recovery from impacts of the COVID-19 pandemic on education.



102 FACILITATOR TRAININGS

62 NEW CERTIFIED SCRIPT FACILITATORS



FEEDBACK FROM FACILITATORS AND WORKSHOP ATTENDEES

"The CSforALL SCRIPT Facilitator Training is valuable because it has given us the skills needed to assist districts in our state to develop strategic plans for CS education."

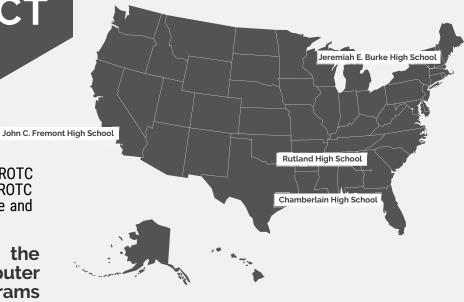
"I believe in CSforALL because they believe in CS For All, it is evident in every activity we complete that we look at CS for all ages, abilities, ethnic and racial backgrounds and provide high quality computer science instruction." "The CSforALL School District Workshop was essential because it protected time and guided us through this process. This workshop will ABSOLUTELY guarantee a higher quality CSforALL plan as opposed to doing this solo."

"The CSforALL School District Workshop supports the work of multiple stakeholders building pathways to make computer science accessible for ALL students."



MARINES PROJECT

A COLLABORATION BETWEEN CSFORALL AND THE U.S. MARINE CORPS JROTC TO OFFER COMPUTER SCIENCE AND CYBERSECURITY EDUCATION TO HIGH-NEEDS SCHOOLS NATIONWIDE.



Four Schools Active in the 2022–2023 Cohort

This effort complements the ongoing bi-partisan JROTC Cyber Training Act, which authorizes the DOD JROTC program to provide evidence-based computer science and cybersecurity education to all JROTC cadets.

The 2022-2023 collaboration with the Marines cohort seeks to build computer science and cybersecurity programs across four high schools, collectively serving up to 5,000 students.

2022-2023 PLANS

In 2022, the Marines JROTC-CS program welcomed a cohort of four schools, highlighted above, kicking off the program with a SCRIPT workshop for each school team composed of the CS teacher, school counselor, JROTC instructor, and school administrators. Each of these schools committed to implementing the AP Computer Science Principles courses offered either during the 2022-2023 school year or committed to preparing for implementation during 2023-2024.

As these important partnerships are developed and shown to be successful, it is evident that taking JROTC-CS as a model for developing a comprehensive school-based model for SCRIPT is the next step in the iteration of these programs. Additional possibilities for collaboration as approaches for piloting and jump-starting this new model came to fruition through newly developed relationships with partners in Maryland and Arizona, with both interests in support and programming for computer science implementation at both the school and regional levels. These are opportunities to be further pursued going into 2023.

PARTNERSHIPS



Our primary partnership is currently with the United States Marines Corps. Cadets are encouraged to follow a modeled pathway: Freshmen participate in CyberPatriot, Sophomores/Juniors take AP Computer Science Principles, Juniors/Seniors join Cyber Academy, and Seniors engage in professional linkages. Our partners will continue to support Adopt-a-School and other corporate engagement opportunities with new Marines JROTC-CS schools, alongside Microsoft, Lockheed Martin, Google, and Capital One.

Microsoft

LOCKHEED MARTIN





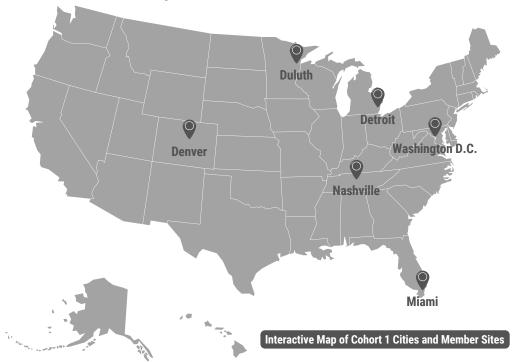
Accelerator

EDUCATION IN THE UNITED STATES IS AN INHERENTLY LOCAL ENDEAVOR, AND COMPUTER SCIENCE (CS) EDUCATION MUST RELY ON LOCAL ACTORS AND DECISION MAKERS IN ORDER TO REACH EVERY LEARNER.

The CSforALL Accelerator Program will impact communities in cohorts, with an intended reach of 2.5 million of our nation's youth who currently lack access to equitable CS education by the end of five years.

Building on insights from our successful programs serving school districts (via SCRIPT) and communities (EcoSystemsforCS), CSforALL embarked on a new strategic initiative focused on accelerating high-need communities in their progress towards fundamental standardsaligned CS education for all learners, and increased access to interest-driven CS learning opportunities.

Through the program and grant awards provided, core community teams (CCTs) have developed local projects to create opportunities for teachers, students, and teachers to engage their local communities in computer science offerings.



POTENTIAL PUBLIC SCHOOL IMPACTS AND CONNECTIONS

	Denver Public Schools	Detroit Public Schools	
207 Schools; 90,250 Students; 4,780 Teachers		107 Schools; 48,615 Students; 3,074 Teachers	
	Duluth Public Schools	Miami-Dade County Public Schools	
	28 Schools; 8,358 Students; 503 Teachers	522 Schools; 33,4261 Students; 16,759 Teachers	
	Metro Nashville Public Schools	Washington D.C.	
	162 Schools; 80,494 Students; 5,245 Teachers	116 Schools; 49,896 Students; 4,335 Teachers	

COHORT 1'S TOTAL POTENTIAL IMPACT:

1,142 Schools | 611,874 Students | 34,696 Teachers

A LOOK INTO COHORT 1



DENVER

COLORADO SCHOOL OF MINES | DENVER BOYS & GIRLS CLUB | DENVER PUBLIC SCHOOLS | DENVER PUBLIC SCHOOLS FOUNDATION

"Our focus is about establishing a broader scope of equitability across the district so that those school sites that are not at all involved yet in some form of Computer Science Education yet exposed to that. We're looking at this sort of like a campaign of awareness if you will to really expand that footprint because it's really important we've been gaining information locally from our district itself and also from Code.org which are now and Karen (CSforALL)."

- Amery Martinez, Denver Public Schools

DETROIT

INDEPENDENT/BEEHIVE AI | KAPOR CENTER

"The Kapor Center is pleased to partner with Detroit Public Schools Community District (DPSCD) to amplify the important work already happening to give Detroit students a first-class learning experience and connect the dots between students' critical interests and the passionate and creative individuals and organizations driving meaningful change. These opportunities to see computing combined with the arts, activism, leadership in tech, and policy creation are exciting and hopeful."

– Kalisha Davis, Kapor Center

DULUTH

COLLEGE OF ST. SCHOLASTICA, CENTER FOR NATIONAL COMPUTER SCIENCE EDUCATION | CSS DULUTH UPWARD BOUND/TRIO

"We're working on developing standards aligned lessons and professional development. Our goal is to train at least 35 K-12 teachers through a number of professional development sessions. And through those PD sessions, we are hoping to reach all elementary students in the Duluth public schools through their library programs."

- Paul Schonfeld, National Center for Computer Science Education,

ΜΙΑΜΙ

CODE/ART | MIAMI EDTECH | MICROSOFT TEALS | MIAMI CSTA

"The district is, for example, prioritizing increasing the number of students who take industry certification. They are also prioritizing outreach to women and girls in tech."

- Max Ringelheim, Miami EdTech

NASHVILLE

AMAZON | TENNESSEE TECH UNIVERSITY

"We are getting geared up for a computer science event as well, which is next Monday. And so with that they've really worked hard for a quick turnaround and I am also thankful for the new relationships and the new knowledge that I am getting by being part of the Accelerator program. I was able to pull in one of our Nashville Partners Amazon and at the last minute , they were able to come and help out right away."

- Giumarra Duhart, Nashville CCT

WASHINGTON, D.C.

DIGITAL PIONEERS ACADEMY | HOWARD UNIVERSITY | UNCF PATHWAYS INSTITUTE

WE THANK OUR FUNDERS FOR THEIR GENEROUS SUPPORT













Csfored

TEACHER PREPARATION PROGRAMS ARE THE IDEAL INSTITUTIONS TO PREPARE TOMORROW'S TEACHERS OF TODAY. HIGH-QUALITY COMPUTER SCIENCE EDUCATION DEPENDS UPON THE INCLUSION OF CS INTO HIGH-QUALITY TEACHER PREPARATION.

In the first year of CSforED,



were equipped with subject-aligned CS education skills through partnerships at four teacher preparation university programs.



Open webinars hosted about CS teacher preparation

1

ECEP Alliance policy brief contribution

CSUDH FUNDED BY SNAP, INC.



FUNDED BY KENNETH C. GRIFFIN, FOUNDER & CEO OF CITADEL CAPITAL



FUNDED BY KENNETH C. GRIFFIN, FOUNDER & CEO OF CITADEL CAPITAL

> Updated CSforED Website to include state briefs containing CS teaching certification details and over 20 case studies of teacher education programs

THE NEED FOR A TEACHER PIPELINE IS MORE CRITICAL AN EVER AS CS TEACHERS AR DERSHI $\mathbf{0}$ CHAN GJOBS POSIT **OR** 0 WORK F CURRI COM G G T



The Snap Inc. Institute for Technology and Education (SITE) had its official opening on September 22, 2022 at CSUDH. Its mission is to make computer science a crucial part of K-12 education in Los Angeles.

Photo Credit: CSUDH

SCRIPT CrewTN

CSFORALL AND CODECREW PARTNERED TO PROMOTE CS EDUCATION IN TENNESSEE AND DEVELOP A STATEWIDE K-12 CS PATHWAY USING CSFORALL'S RESOURCES, INCLUDING SCRIPT.



Acting as the lead research organization in the grant, CSforALL is working with CodeCrew to reach at least 67 LEAs in TN with SCRIPT by August 2024. That's 45% of all public school districts in Tennessee. This impact will be achieved by training a Tennessee-based cohort of SCRIPT facilitators, whose impact will live beyond the program.

2022 ACCOMPLISHMENTS

Our first two Tennessee-based facilitators ran our kickoff workshop for six school districts in southwestern Tennessee. Almost the full project team was in attendance, and we gained valuable insights and collected data during that workshop so we can take a design-based implementation research (DBIR) approach to improving the SCRIPT offering for the other school districts in Tennessee.

2023 PLANS

Our next six Tennessee-based facilitators will be trained, and workshops will be run in seven geographic regions, purposefully chosen for their higher percentages of black and hispanic students enrolled, so we can broaden participation in computing. We anticipate serving at least a third of the public school districts in the state of Tennessee, and we will publish conference papers to share the success of our approach so far.

FEEDBACK FROM PARTICIPANTS

"I believe in CSforALL because it exposes students to various educational/career opportunities in an evolving job environment." "The CSforALL School District Workshop was extremely beneficial because we are now able to develop an intentional and concrete plan to implement CS in all of our schools across all grade bands in order to prepare our students for their future college and/or career plans, as well as better prepare our teachers to work with those students to achieve those goals."

"I believe in CS for all because we live in a technological society and tech is where the jobs are, and I want our students to have as much exposure as possible."





The project is being evaluated by our partners at CSEdResearch.org and is funded through the National Science Foundation (CNS-2122756).

REPORTSAND RESEARCH

white papers that represent the wisdom and experience of our relevant members to uplift current best practices at the crossroads of CS and Career Technical Education, as well as the latest thinking in bringing AI and Data Science learning into the classroom were released:

CSforCTE

CSforCTE

AI and Data Science Education



In the CSforCTE report, educators, policymakers, and workforce partners interested in CS CTE programs can use this report to identify best practices for equitable implementation of CS education in the United States.

In reading the AI and Data Science report, policymakers, education leaders, advocates, and community members are encouraged to prioritize making CS education accessible to all learners in their community, helping learners and parents understand options for postsecondary education and careers, and ensuring that AI and DS are taught in academic pathways.

The Future of Problem Solving with Data and Intelligence

Increasing Artificial Intelligence and Data Science Education Across the US

While the participants in the working group for the CSforCTE report are named, the partners in the project otherwise wish to remain anonymous.

Partners and Funders



ক্ট্র

Funding for the AI and Data Science Report was provided through grant number 2135878 by the National Science Foundation. Any opinions, findings, or conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

We're excited about producing more conference papers in 2023 sharing high leverage strategies to strategically offer support school districts in a statewide context, as well as overall best practices in conducting computer science research through a research-practice partnership. We also look forward to writing and sharing our learnings in the BPC Alliance work with our members and the scholarly community.

PHILANTHROPIC PARTNERS

FOUNDATION AND CORPORATE DONORS

AgLaunch Amazon Future Engineer Best Buy Boot Up PD Bot Ball/KISS Capital One Chalkbeat **City of Memphis** CMU (Carnegie Mellon University) CodeHS **Crusoe Energy Systems** CSTA **Dalio Foundation. INC** Data Science for Everyone ECEP Ed Farm Electronics Recycler International, Inc. **Endless Network** Epicenter Facebook/Meta FedEx Global Giving and FedEx CTO Firia Labs Girls who Code Google Greater Memphis IT Council Hopper Dean Foundation **IMC** Companies Infosys Foundation USA Jake Wright Charitable Fund JP Morgan Chase

Junior Achievement of Memphis Kapor Center Kenneth C. Griffin Charitable Fund Kira Learning Knight Foundation Fund at The Miami Foundation LaTrobe Lockheed Martin Corporation **Memphis Chamber Microsoft Corproation Microsoft Philanthropies** Microsoft Teals Northrop Grumman **Oteka Technologies** Patrick J. McGovern Foundation SAS Scratch (MIT) **Siegel Family Endowment** Skill Struck St. Scholastica/National Center for Computer Science Education (CSED) Tech901 The Seam **TN Entertainment Commission** University of Memphis Research Foundation/FedEx Institute of Technology UNCF Texas Advanced Computing Center (TACC) at the University of Texas at Austin **VEX Robotics VHS** Learning

To Our Individual Donors: Your philanthropic contributions enable us to mobilize the expertise, capacity, and knowledge of advancing CS education communities that invest in the next generation of problem solvers through systemic-change initiatives and partnerships.

AN INSIDE LOOK AT CSFORALL



Leigh Ann DeLyser Executive Director Co-Founder



Chad Womack Chair

Katy Knight Vice Chair







Lucy Sanders Secretary

> **Doug Jaffe** Board Member









Evan Korth Board Member







Hope Taitz Board Member



Jose Antonio Tijerino Board Member

Dr. Nicki Washington Board Member





Fred Wilson Founder Chair Emeritus

AN INSIDE LOOK AT CSFORALL



Leigh Ann DeLyser Executive Director & Co-Founder



Cameron Huelster Executive Assistant



Dionne Williams Senior Director, Operations



Jazmin Farrell Manager, HR Operations & People Experience



Ebony Rives Operations Coordinator



Megan Hildebrand Director, Development



Stephanie Wortel-London Director, Research



Luronne Vaval Research Associate



Camie Belgrave Senior Director, Programs & Partnerships



Karen Cheng Associate Director, Programs & Partnerships



Bernell Murray Program Leader, Accelerator



Sriranjini Kozhissery Senior Manager, Community Engagement



Cristina Kimmons Community Engagement Coordinator



Wren Hoffman Program Leader, SCRIPT



Marcelo Dedini Program Coordinator



Nadia Tronick Senior Manager, Communications



Danielle Limpabandh Communications Coordinator



Joel Ryan Senior Manager, Systems



Coralie Gnikobou Data Manager



Tina Boyle Whyte, a dedicated mentor and lifelong learner who was deeply committed to education, passed away in January 2023. Known for her optimistic and fun-loving personality, Tina had a profound impact on her colleagues and the computer science community. The CSforALL Team is deeply saddened by her passing and will remember her fondly. We will miss her very much.

Tina Boyle Whyte Program Leader, JROTC-CS 2022 Year in Review



www.csforall.org

@CSforALL

info@csforall.org