# YEAR IN REVIEW 2020



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## A LETTER FROM OUR EXECUTIVE DIRECTOR



2020 was the year we realized we had to throw away our duct tape glasses. We all know the image, the pair of glasses that are broken, and patched back together with duct tape. Our education systems, and society as a whole, realized our systems were broken or at least not functioning properly as the world dealt with a global pandemic and awareness of racial injustice. Similar to other communities, families, and organizations, the CSforALL staff dealt with a shift to remote work and operations, while staying committed to being a hub for the national CS education community.

Thanks to the generous support of our sponsors, and contracts for program activities, CSforALL was fortunate enough to maintain support for our staff, and continue to operate with a level of quality the community has come to expect from our work. Although we were unable to meet in person, we held community calls, webinars, virtual facilitator trainings and workshops, and a star-studded commitment event to highlight the ongoing work of the larger community.

CSforALL also took a critical look at ourselves in this moment of reflection. We shared our commitment to continue work to dismantle systemic racism by changing the systems that not only provide the landscape for inequity and injustice, but also reinforce it through historical policies, beliefs, or structures that were not designed or created with equity in mind. We also engaged in a strategic planning process that will result in stronger connections between our efforts and desired outcomes and clearer outcomes for the community. Throughout it all, the staff reaffirmed our commitment to equity and social justice and carefully considered how our actions or lack of actions could have positive or negative consequences.

Personally, I am optimistic about the future of CS education and the CSforALL community. The voices leading in our community have become increasingly diverse, and discussions around CS education are increasingly acknowledging root causes of inequity and lack of access. As we move into this new decade and move together to close the gaps in access and participation in high-quality CS education, my hope is that together we can be intentional to design for diversity, and prepare the next generation of solvers who will tackle society's biggest challenges, and produce technologies that continue to inspire and delight.

#### Leigh Ann DeLyser

Executive Director and Co-Founder, CSforALL

## **CSFORALL FOCUSES ON ANTI-RACISM & INJUSTICE**

As of June 2020, CSforALL pledged to take seven initial Actions to focus on anti-racism and injustice inspired by voices and messages from the CS community.

With these seven initial pledges, we acknowledged this is the very beginning of our work on anti-racism and injustice. As an organization committed to equity in education, CSforALL acknowledges the systemic racism that permeates our society. We will continuously work towards the learnings that need to happen for us as an organization and as individuals to do our best in the education systems space.

### •• CSforALL Pledges to the Following 7 Initial Actions:



We pledge to use our words with intention, to infuse equity and anti-racism into our resources, writing, commitments, workshops, reports, and tools built for the community.



We pledge to **repeatedly speak out against our historical pedagogies and approaches to computer science instruction** that are grounded and designed to weed out all but a small prerogative subset of the US population.



We pledge to **double-down on Culturally Responsive Pedagogies** and, more importantly for CSforALL, **Culturally Responsive School (and organizational) Leadership** and include high quality examples in webinars, newsletters, reports, and convenings.



We pledge to be an organization and a movement focused on anti-racism and inclusion for the long haul, to lock arms, work with collaborative partners, and NEVER assume that one size fits all.



We pledge to advocate for, and lift up, high-quality examples of curriculum focused on the impacts of computing, **especially in communities of color, and be explicit about its inclusion in K-12 classrooms.** 



We pledge to **use our words with intention, to infuse equity and antiracism** into our resources, writing, commitments, workshops, reports, and tools built for the community.



We internally pledge to **create an inclusive, unlearning and learning environment for all employees** that includes fundamental readings and videos about racism in society, education broadly, and computer science education for all staff — the reading list will be shared publicly.



## **CORONAVIRUS (COVID-19) PANDEMIC**

A transition happened early March of 2020 for our organization, as for millions across the globe, as COVID-19 became a global pandemic. CSforALL immediately converted to a virtual workplace with the mindset of continuing our mission's work in a virtual setting with our members, project partners, and each other.

#### **OUR TEAM:**

CSforALL immediately converted to a virtual workplace and operations continued as usual. We sheltered in place and virtually met with each other, our members, and partners. For the rest of 2020, travel for events and meetings were suspended.

#### **OUR COMMUNITY:**

CSforALL worked with our partner organizations to collect and share resources to support at-home and virtual CS education. During that time, many CS organizations took precautionary steps that involved in cancelling or postponing meetings and events.

#### **OUR EVENTS:**

We were hopeful that COVID would not impact any of our 2020 events. However, it was clear as time went on the pandemic made it impractical to hold in-person events. We rescheduled and/or hosted virtual conference.



Throughout the year, CSforALL brought in **70+ members, partners, & organizations** to the virtual national stage to share their resources & success stories to support the CS Community during the pandemic.



The CSforALL team **hosted over 10+ webinars** that addressed the impact of CS Ed in the pandemic. The webinars provided tools, resources, and a space to get support through the Q&A section.



Unfortunately, due to ongoing concerns over the coronavirus (COVID-19), CSforALL announced that the 2020 national CSforALL Summit will be rescheduled to October 2021.



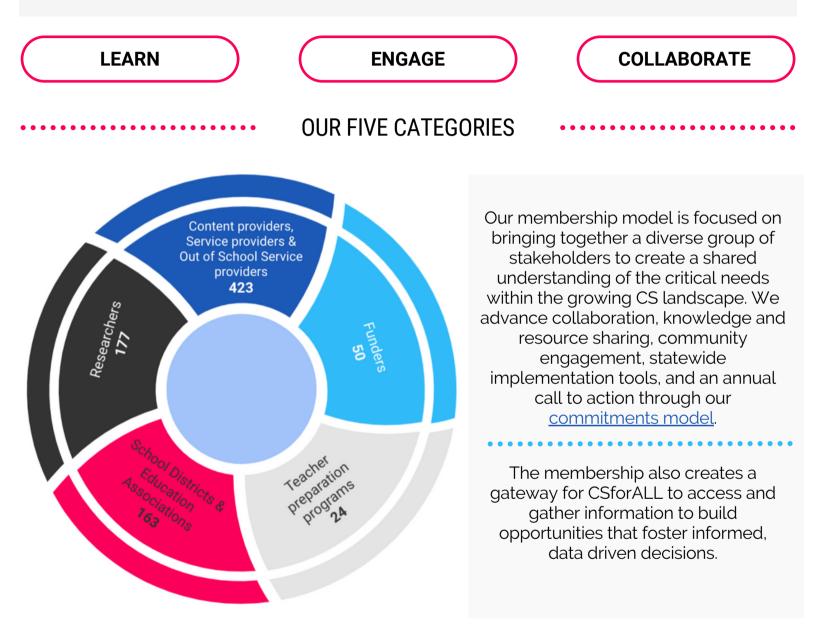
With the support of the CSforALL Community, **CSforALL wrote and published over 15+ Medium articles around CS Education in the COVID era** that shared resources and spotlighted successful stories.



SFORALL'S RESPONSE TO THE COVID-19 PANDEMIC

### **CSFORALL MEMBERSHIP**

**CSforALL's membership** is at the core of CSforALL that provides a collective pathway for organizations, corporations and education associations who have a shared interest in CS education to:



### TOTAL MEMBERS IN 2020:





## **CSFORALL MEMBERSHIP**

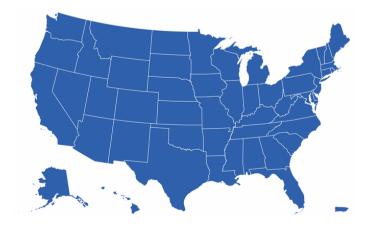
### WHAT IT MEANS TO BE CSFORALL MEMBER

Members connect and learn about CSforALL and opportunities through our monthly newsletter, community calls and social media Members share their work & expand their network with the CS community using our member directory, commitments, newsletter & media.

Members engage with us through our various internal programs (SCRIPT, JROTC, Ecosystems, RPP, Commitments, etc.). Members access and use our digital infrastructures (AlignCS, Member Portal, Commitments Visualization, etc.) to support their org. goals.

MEMBERSHIP GROWTH





### **MEMBERSHIPS BY REGION**

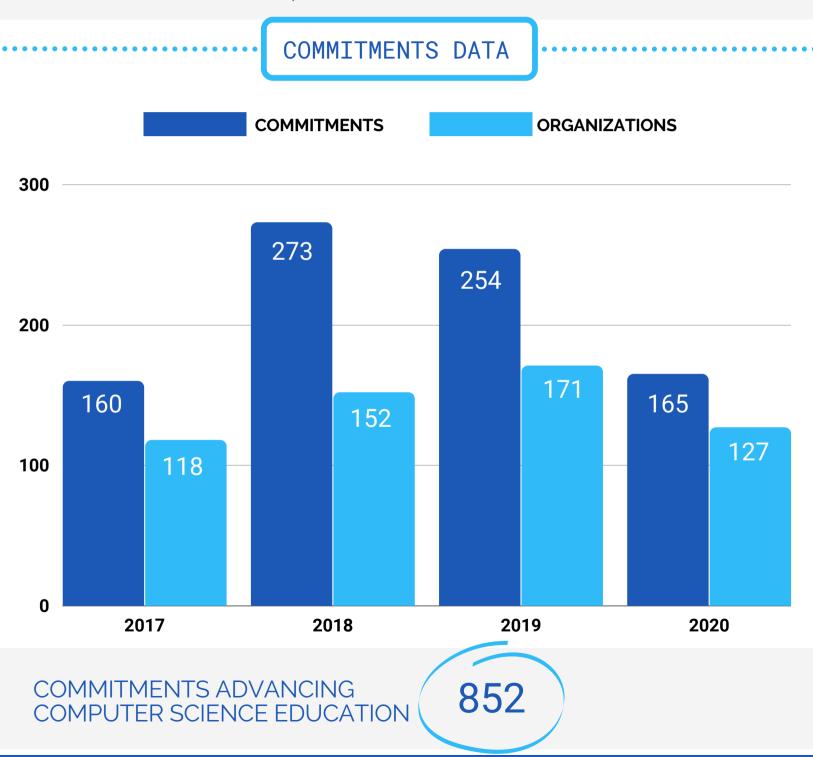
- Mid-Atlantic (279)
- Midwest (276)
- National (296)
- Northeast (290)
- Northwest (227)
- Southeast (275)
- Southwest (261)
- West (268)

Note: Each member can select more than one member type.



## **CSFORALL COMMITMENTS**

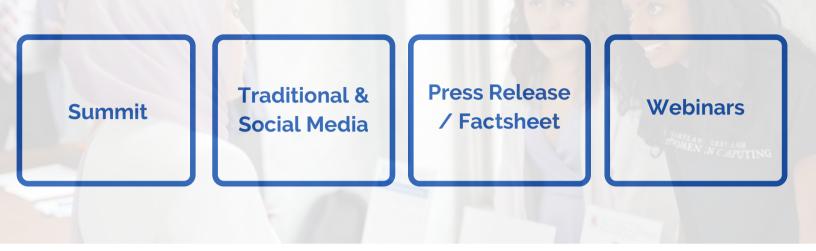
**Since 2017**, CSforALL has created a yearly call to action for organizations to submit commitments toward the goal of impacting rigorous, inclusive and sustainable computer science for all students.





## **CSFORALL COMMITMENTS**

### HOW WE SPOTLIGHT CS COMMITMENTS



**In 2020,** we knew access to computer science has never been more crucial to preparing United States students for the future. To communicate the importance and share the true impact of making a CSforALL commitment, we released a series of Commitment Webinars to the community that highlighted different perspectives and stories from past commitment makers.

# of Commitment Webinars: 6

# of Webinar Speakers: 18

**# of Webinar Participants: 449** 



In 2020, 64 commitments were made by 56 organizations focusing on increasing equity and racial justice in CS education, training, and career development for students and educators.



In 2020, 19 commitments were made by 17 organizations announcing efforts to expand virtual CS, robotics, and STEAM/STEM education offerings for students and educators in response to the COVID-19 Pandemic, serving more than 1M students and 2,000 educators through 2022.



In 2020, 15 commitments were made by 14 organizations commitmenting to work to create, provide or research high-quality CS education for all students.



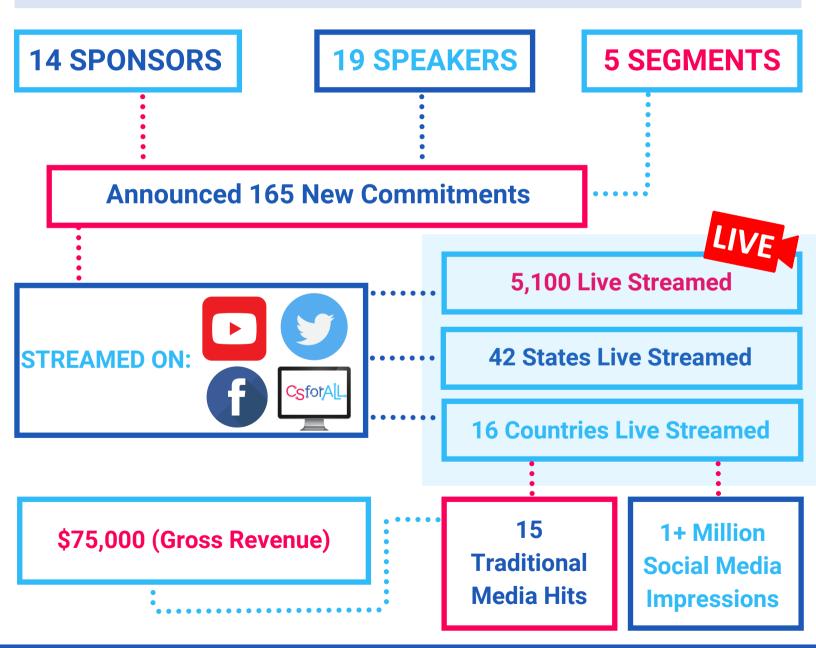
### CSFORALL COMMITMENTS

### 2020 #CSFORALL COMMITMENTS SHOWCASE

Though the in-person CSforALL Summit was postponed, we recognized the need to bring rigorous and equitable computer science education to ALL, amidst the dual pandemics of COVID-19 and racial injustice, was more urgent than ever.

To elevate the work that was being done, we hosted, with CodeCrew, a virtual **#CSforALL Commitments Showcase on** Tuesday, November 17, 2020.

Racial Equity Prepare the Solvers Close the Gaps Design for Diversity Pandemic Response





## **JROTC-CS DEMONSTRATION PROJECT**



In 2019, CSforALL partnered with the US Air Force Junior Reserve Officer Training Corps (JROTC) and an Advisory Consortium of industry and non-profit partners to support the JROTC Demonstration Project.

The intended goal was to reach untapped tech talent through a significant pool of highly diverse population cadets with a majority-minority **student population of 40% being female, and economically disadvantaged with over 50% of the schools being Title 1 schools.** 

#### NORTH DAKOTA ASHINGTON MONTANA MINNESOTA SOUTH DAKOTA WISCONSIN OREGON MICHIGAN IDAHO ŃН WYOMING NEW YOR IOWA NEBRASK **IFLINOIS** PENN OHIC NEVADA INDIANA UTAH COLORADO KANSAS MISSOURI IRGINIA VIRGINIA KENTUCI CALIFORNIA OKLAHOMA ENN ARKANSAS NEW MEXICO MISSIPPI ALABAMA GEORGIA TEXAS LOUISIANA

#### Map of the 30 participating JROTC-CS demonstration schools:

The goal of the demonstration is to reach the 32% of students who do not currently have access to computer science in their school.

The project was designed and began testing the model for long term scale up of evidence based Computer Science (CS) and cybersecurity education implementation of Advanced Placement Computer Science Principles at schools where there were there are JROTC candidates.

#### Professional Development for Teachers and Instructors

The JROTC-CS team trained a total of **30 teachers and 30 JROTC instructors** during the initial kickoff in February 2020. During the initial implementation phase, **23 out of 30 schools** implemented AP CSP in their school's program of studies.

JROTC Instructors were trained by our partners at NCWIT, CYBER.ORG, and Start Engineering Publications.



Air Force, College Board, AF CyberPatriot, Cyber.org, WITH HONOR, NICE **Hill Visits** 

16 PARTICIPATING SCHOOLS

(AL, AR, AZ, CA, FL, IL, MS, NV, NY, OK, SC, TN, UT)

#### 14 OFFICES VISITED

(Richard Shelby, John Boozman, Kyrsten Sinema, Dianne Feinstein, Marco Rubio, Richard Durbin, Roger Wicker, Catherine Cortez Masto, Chuck Schumer, Jim Inhofe, Lindsey Graham, Lamar Alexander, Mike Lee)

Intel, Google, Microsoft, Lockheed Martin, Capital One, SNAP, SANS Institute, Schmidt Futures, Internet Association



### JROTC-CS DEMONSTRATION PROJECT

-unders

### THE SCRIPT: STRATEGIC CSFORALL PLANNING TOOL FOR SCHOOL DISTRICTS

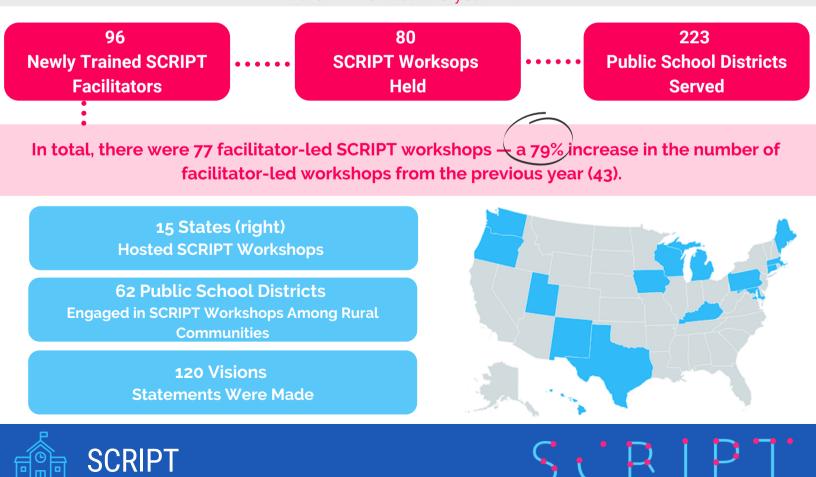
#### ····· 2020 CSforALL SCRIPT SYMPOSIUM ·····

Kicking-off 2020, CSforALL hosted its second annual locally-focused computer
science symposium in Denton, Texas. For the second consecutive year, thanks to
DELL Technologies, CSforALL had the opportunity to gather 18 school district
teams and 36 facilitators from more than 18 states across the United States to
learn about our framework and tool for strategic planning and implementation:
the "SCRIPT." Our Symposium host was the University of North Texas in Denton,
Texas. With their incredible support, and the contributions of our local presenting
partner, State Farm, the 2020 SCRIPT Symposium was extremely successful.



#### •••••• SCRIPT TRAININGS & WORKSHOPS •••••

Despite the challenges presented from the shifts to virtual and hybrid learning during 2020, the CSforALL team was able to quickly adapt and provide SCRIPT workshop and training opportunities for districts and states across the country in a new and modified virtual experience. CSforALL ended the year with:



## **ECOSYSTEMFORCS** (E4CS)



Systems

#### The 10 CS Ecosystems Communities

1. Central Washington CS Alliance (Wenatchee & Yakima, Washington) 2. Central2CS, (Worthington, Ohio) 3.CS4ALL Miami powered by Miami EdTech (Miami, Florida) 4. CSforCHI (Chicago, Illinois) 5. CSforOK (Tulsa, Oklahoma)

SCIENCE (E4CS)

Community

6. CSforRGV (Mission, Texas)

Institutions

- 7. CSMN-Southeast (St. Paul, Minnesota)
- 8. Gateway to Computer Science (Richmond, Virginia)

Influencers

- 9. Girls Code 205 in Birmingham (Birmingham, Alabama)
- 10. New MexiCodes (Santa Fe, New Mexico)

EcoSystems for

#### Lessons Learned & Outcomes

Impact of COVID	For Central 2CS, Worthington OH had to provide online professional development for teachers which resulted in removing geographic barriers of attending, and resulted in expanding access to more teachers. It has helped them realize how rural their region is.
Partnerships	By learning from other E4CS cohorts, the CS4ALL Miami planning team was able to better understand how to build collaborations within the Miami-Dade County public school system. As a result, CSforALL Miami was ready to provide technical assistance and professional development to teachers when the pandemic hit.
Planning Teams	For Chicago, a city with many partners and competing interests, the CSforCHI initiative was able to create one inclusive group, and streamline the ecosystem. The design thinking process enabled them to reflect, remember who they are designing for, and design for empathy.
ECOSYSTE	MS FOR COMPUTER

## **REPORTS AND RESEARCH**

### Partnering to Connect Research to Practice for the Improvement of Computer Science Education



## SIGCSE 2020: Evaluating a Systems Approach to District CS Education Implementation

(DeLyser, Wortel-London, Wright, Bora)

Paper Presentation on the Facilitator work in SCRIPT



#### ITiCSE 2020: Opportunities and Challenges for Scaling a Systems-Approach to CS Education Adoption

(Fernandes Dionis, Wortel-London, DeLyser, Bora)

Poster to the international audience on scaling mechanisms strategic planning (virtual format, trained facilitators, and symposium)



**CS Policy to Practice: Understanding Emerging Approaches to State-Level Computer Science Education Policy Design in the United States** (CSforALL, in partnership with the Expanding Computing Education Pathways (ECEP) Alliance and SageFox Consulting)

A report that seeks to document progress, make recommendations, and highlight questions at the intersection of accountability, alignment, and data related to state CS education policy.



**CSforCTE Meeting 2020:** CSforAll convened with partners in industry, state-level education policy leaders, and expert educators from the worlds of career and technical education and computer science education to gather best practices around the often intersecting worlds of CTE and CS.

This virtual meeting resulted in the CSforCTE White Paper to support and enhance educating students around computing in the CTE classroom.



### **REPORTS AND RESEARCH**



## THANK YOU TO OUR SPONSORS & PARTNERS

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Chloe Zhong	Jourd
Craig Wood	Kat
Doug Jaffe	Lysa
Eric and Wendy Schmidt	Mich
Evan Korth	Mich

Jake Wright James Somers Jourdan Parham Katy Knight Lysander Pena Michael Carter Michael Dubno

Milton Chen Nicki Washington Rob Bertz Sarah Holloway ...and the many community members who support our work anonymously

#### 2020 Showcase Sponsors



### AN INSIDE LOOK AT CSFORALL



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**Doug Jaffe,** Chair



Fred Wilson, Founder Vice-Chair



**Evan Korth,** Vice Chair



**Sarah Holloway,** Treasurer



Lucy Sanders, Secretary



**Michael Carter,** Board Member



Michael Dubno, Board Member





**Hope Taitz,** Board Member



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### AN INSIDE LOOK AT CSFORALL



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Morgan McCray Senior Director, Operations





**Camie Belgrave** Director of Programs and Partnerships



**Ruthe Farmer** Chief Evangelist



Sriranjini Kozhissery Project Manager

Stephanie Wortel-London Director of Research





**Tina Boyle Whyte** Project Director, JROTC-CS

Joe Sweeney Administrative Assistant





## AN INSIDE LOOK AT CSFORALL



Luronne Vaval Research Fellow

Nadia Tronick Communications Manager





Emilio Vargas Vite Data and Systems Analyst

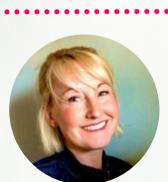


**Anisa Bora** Project Manager



Lesley M. Quizhpe Project Coordinator

Lilli Jimenez Full Stack Developer



**Meg Richard** Executive Assistant,

**Jennifer S Klopp** Campaign Director, CS4ALL NYC





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