

Letter from the Executive Director

It's hard to believe, but five years ago in Omaha, I stood in front of the CSTA community as we launched the "new era of CSTA." I knew firsthand the impact that CSTA could have from my time as a high school computer science teacher, when the Chicago chapter of CSTA connected me with the resources and development I couldn't find in my home school or district. I won't lie: as I took the stage in Omaha in 2018 I was nervous about the future of CSTA. The organization had lost its way over the previous few years, but we made a bet that if we invested deeply in our chapters, grew the annual conference, and delivered high quality PD directly to our members, the community would respond.

And respond it did! From that initial launch of CSTA's new era five years ago, we've accomplished a ton together:



 (\checkmark) We've launched programs that center and elevate teachers' voices

We've developed and delivered our own professional development, specifically focusing on how to help you grow as a CS teacher

(We've quadrupled the size of the annual conference

We've tackled the many challenges that the last few years have thrown at us, including navigating the pandemic and taking on additional responsibilities as educators and allies that we never expected

We've offered professional learning opportunities to more than 15,000 participants through CSTA directly, and thousands more engage with our chapters every year



Jake BaskinCSTA Executive
Director

Letter from the Executive Director

And now, it's time to plan the next era of CSTA.

This year, we'll kick off strategic planning to chart the next five years for the organization, and I want to make sure each and every one of you is an engaged CSTA member. There's so much you can do at CSTA to impact your classroom and beyond:

- Make the most of your membership by connecting with fellow educators and CS allies—in person if you have a local CSTA chapter, or online through our CSTA virtual community
- Explore and use our extensive Resource Library, which features past event sessions and other CS resources available only to CSTA members
- Join one of our affinity groups, where CSTA members can connect with other members who share a common identity or interest
- Take the online professional development courses that are included in your membership. These courses were created to help you keep expanding your CS knowledge
- Attend webinars and virtual workshops tailored to your interests

As CSTA members, you're part of the largest CS department in the world, and there's incredible strength in our global CS community. Engaging with one another in person and virtually is the best way to strengthen and grow our CSTA community.

Letter from the Executive Director

As we usher in the next chapter of CSTA, there are some key guiding principles as we plan for our future:

We must continue to strive for more equitable, inclusive, and just CS education experiences. Computer science education does not magically exist outside of the inequitable systems of education we work in, and it's our role as teachers and educational allies to actively disrupt these inequities.

We need to build the next era of CSTA with a focus on what you, our members, most value. And we need you to show that you value it through membership. This is central to CSTA's independence. We either rely on our members (you), or we rely on the corporations that sponsor us. And don't get me wrong, I love our sponsors! But we all know that the interests of teachers and the interests of our sponsors will not always align.

We need to update our standards. Our work is guided by our standards, and they're getting a little stale. The next era of CSTA must update these standards, and we need to create the supporting materials necessary to offer a foundational CS education that enables students to be active participants in the increasingly computational world.

These are just a few of the guiding principles I'd like us to focus on, but I also don't have all of the answers. That's why I'm looking to you, the CSTA community, to get involved and keep pushing CSTA forward with your ideas. **CSTA** is the **ONLY organization in this field** that is led by teachers. This is your chance to help shape the next five years of CSTA. I know that you'll step up and do so as leaders in your classrooms, leaders in your local chapters, leaders in our virtual community, leaders in pedagogy, and beyond.











Computer Science Teachers Association

Building Local Community Through CSTA Chapters

We currently have

92

active chapters, with

11,192

total chapter members and

600

total Chapter Leaders



With the support of the regional chapter support coordinators, CSTA chapters continue to build local community and provide ongoing professional development to CS teachers in their respective regions.

In 2022-23, **3 new chapters formed**: CSTA Montana, CSTA Japan, and CSTA India. In addition, **7 Virginia chapters consolidated**, as did **2 Illinois chapters**.



of chapter members are satisfied with the activities of their chapters



responded that they have "someone or some way to ask questions and receive support"



reported that their "perspective is welcomed and honored" in their chapter

Enhancing the CSTA Website

CSTA's offerings have grown immensely over the past few years, and in 2023, we launched a new website to better serve our members. This new platform will enable CSTA to continue to provide CS teachers, administrators, and advocates with the resources needed for success.

Features of the new website include:

- A new and improved resources library with lessons, event session recordings, and CS teaching resources—all organized in alignment with CSTA standards
- Updated CSTA+ benefit library for easy access to member benefits
- (Improved navigation and search
- Improved accessibility features, to better serve all members

More than **675 resources** are currently available in the Resources Library.

Cultivating Vibrant Virtual Communities

This year, we enhanced our virtual community space by incorporating

308

resources from CS for All Teachers and adding,

10

new affinity group spaces, including our Indigenous Affinity Group, Art and Computation, CTE Instructors, and Video Game Design and Development.

Members posted **2,600 times**, with over **400 posts** in our dedicated affinity group spaces.



Growing Computer Science Honor Societies

Computer Science Honor Societies (CSHS) grew by

20

active chapters in FY2023, with

3,673

total CSHS members (an average of 28 members per chapter)



of chapters are at Title 1 schools, and over 1,200 CSHS graduating seniors plan to major in CS

CSHS chapters completed more than 25,000 service hours, with an average of 196 hours per chapter.

This year, we hosted the inaugural CSHS Leadership Summit, which welcomed over 100 students and advisors for a full day of learning focused on equity, service, and excellence.

The event included

12

student-led sessions from honor societies across the country







Female

Marginalized student groups (students with learning differences, migrant students, students who identify as LGBTQ, students who were/are incarcerated. ELLs)

Nonbinary

28.2%

11.5%

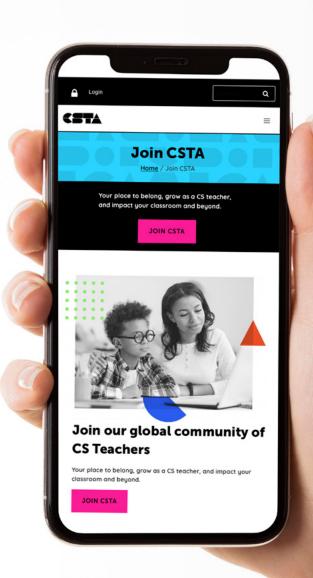
2%

Expanding CSTA+ Membership

CSTA finished the 2022-2023 program year with over 19,500 members, including more than 5,100 CSTA+ members.

In 2023, CSTA expanded its membership offerings, including new benefits for CSTA+ members. CSTA+ benefits include on-demand PD courses, a searchable database of CS resources by teachers for teachers, discounts to help teachers achieve certification, opportunities for teachers to be recognized for their work, and resources to support classroom instruction.





Recognizing Excellence in the Field

Teaching Excellence Award

Through the CS Teaching Excellence Award, CSTA and Infosys Foundation USA recognized educators who excel at inspiring students to study CS and engaging with underrepresented students. For the 2022–23 year, CSTA honored 15 CS educators nationally and expanded the regional program in order to recognize an additional 27 teachers. Regional winners received a stipend, and chapter grant funds funded celebration events, which built community among members and honored the accomplishments of local winners.



National winners

Matt Alonzo
Paige Besthoff
Jason Michael
Galbraith
Keethan Kleiner
Chantell Mason

Carla Neely
Michelle Pierce
Trevor Rabourn
Daniel Sorge
Melissa Zeitz

Honorable mentions

Christopher D. Evans
Jeremy Joven
Ascension Reyes
Cindy Wong
Julie York

Regional winners

Arizona
Kim Alvin De Lara

Tyrone James Joe

Indiana

Jennifer Steward

lowa

Ryan Friederich

Kyle Kuhlers

Emily Lewis

Miami

Mark Godinez

Wanda Latrice Jones

Daniel T. Jones

New England

Charlie MacFadyen

Joanna Marcotte

Priya Rajagopal

New Jersey

Richard J. Bell

Atiyah Conry

Maria Filipe

South Carolina

Courtney Dickerson

Sheriff

Lizabeth Nelson

Webber

Wyoming Sara D. Schnell

Four Corners

Ann Root

Ramsey Seweingyawma

Brian Smith



Recognizing Excellence in the Field

Cutler-Bell Prize

Awarded by CSTA and the Association for Computing Machinery (ACM), the Cutler-Bell Prize in High School Computing recognizes high school student projects or artifacts that engage modern technology and computer science. The four winners of the 2022-23 award offered innovative approaches to providing financial accounts for unbanked populations; detecting, predicting, and visualizing invasive species growth; diagnosing and finding remedies for highly pervasive age-related diseases like cancer or Alzheimer's; and helping Postural Orthostatic Tachycardia Syndrome (POTS) patients who experience vasovagal syncope, which is a sudden drop in heart rate and blood pressure leading to fainting.



Winners:



Okezue Bell



Hannah Guan



Nathan Elias



Sirihaasa Nallamothu

Engage teachers directly in ongoing PD

CSTA 2023 Conference

CSTA returned to cyberspace for this year's virtual conference, giving teachers from around the globe access to high quality professional development and community building opportunities. Attendees spent three days enjoying keynotes, breakout sessions, and getting to connect digitally. For more detailed information about the conference, check out the <u>2023 Conference Annual Report</u>.

Key metrics include:

1,569

participants



believed attending was a good use of time



felt inspired and energized



believe CSTA pushes education to a deeper focus on equity & inclusion



were satisfied with the conference

CSTA Summits

CSTA hosted two virtual summits this past year: the How We Teach Computing Summit and the third annual Equity in Action Summit, led by CSTA Equity Fellows.

Summits welcomed

542

total attendees

And achieved

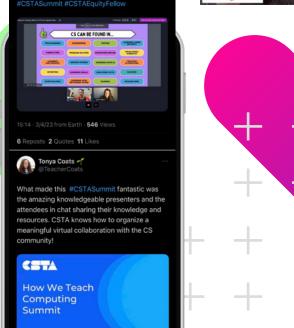
attendee satisfaction

I am always so impressed by the level of engagement from participants at CSTA events! I believe this is because CSTA works hard to welcome and include educators to the community. Thank you for providing a space for CS educators to network and learn together!"

Corey Rogers | Digital Learning Consultant







Online PD Modules

CSTA's online professional development (PD) courses provide a flexible, self-paced deep learning experience. Course content includes meaningful, interactive activities and asynchronous collaboration with other CS educators.

Since last year's launch, the Identity Inclusion for K-12 CS Educators and the Tech Security:

The Security Mindset courses had a total of

883

participants

477

participants in Identity Inclusion

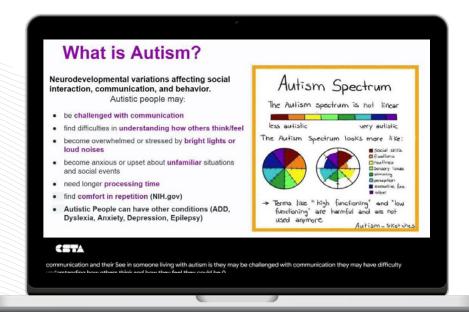
406

participants in Teaching Security

CSTA developed two new online courses, which are open for Fall 2023 enrollment.

Using Data to Improve Diverse Participation in CS provides a foundational understanding of the systematic and structural barriers that keep underrepresented students out of computer science classrooms.

Fostering a Sense of Belonging in Your CS Classroom explores critical elements of the classroom in order to create an environment that is welcoming for everyone.



Engage teachers in ongoing PD provided by CSTA chapters

This past year, our CSTA Chapters hosted over 670 events, impacting at least 4,605 unique educators, and over 19,000 total attendees across all events.

CSTA chapter activity increased as many returned to in-person events, including more than

 $92\,{}^{\circ}_{c}$

one- to two- day summits and conferences

37

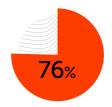
PD weeks

66

student events

27

in-person chapter meetups were also held in conjunction with the CSTA 2023 virtual conference The most common activities at chapter events were networking, learning about new tools and curricula, equity-focused PD, and professional learning communities.



of chapters held equityfocused PD over the course of the year



Deliver Outstanding PD

CSTA held **96 professional learning events** in addition to the CSTA Annual Conference, with about **5,382 total participants**. This represents a marked increase from the previous year, with **36 more events** and about **2,000 more participants** than FY2022.





of participants were K-12 teachers, with 68% teaching high school, 43% middle grade, and 41% elementary



of participants identified as female or nonbinary



identified as Black, Indigenous, Latinx, Pacific Islander, or other (nonwhite) race Post-event surveys for events held in 2022-23 provided consistently positive feedback.



of attendees reported satisfaction



reported the presenters were effective



identified a takeaway



reported that their disability-related accessibility needs were met

.

Develop PD opportunities focused on equitable teaching of computer science

CSTA is a proud member of the Alliance for Identity Inclusive Computing Education, which seeks to empower the next generation of computer scientists by eliminating systemic barriers. As part of this Alliance, we:

- developed the Identity Inclusion for K–12 CS Educators online PD course
- developed chapter inquiry groups, where teachers will discuss topics of identity and equity in professional learning communities
- hosted monthly professional learning series events and quarterly summits for PD providers
- launched a national survey of PreK–12 CS teachers
- formed a teacher-led policy committee



CSTA Equity Fellows hosted the third annual virtual Equity in Action Summit.

Professional Learning Series topics include celebrating a variety of cultural heritage months in CS, culturally responsive instruction, accommodating CS students with disabilities, and equitable CS assessment practices.

CSTA launched the second year of an equity-focused peer mentorship program in partnership with CSTA Wisconsin Dairyland and WestEd.

The CSTA Annual Conference included 42 sessions (16%) specifically focused on equity and inclusion. 53% of sessions aligned to one or more of the CSTA Standards indicators aligned to equity.



CSTA Equity Fellowship

The 2022–23 cohort of CSTA Equity Fellows included 20 CS educators and allies, representing 17 different states. The fellows spent their year learning, collaborating, and developing six projects that they presented during CSTA's annual conference:

- A website that serves as a hub for accessibility resources for CS educators
- Infographics to further engage community and family around the topic of computer science
- Continuation of the #OneVoice in CS Podcast, which features a diverse array of persons and perspectives from within the CS community
- A framework to help CS educators/advocates to establish or expand their CS programs
- A children's book that features stories of initial encounters with CS and the passions that develop thereafter
- A guide for administrators to advocate for and establish CS programs at their schools



Fellows wrote more than **20 featured articles** for the CSTA Voice blog and recorded **100 minutes of flash talks** for CSTA 2023.

Including the 2022-23 cohort, the Equity Fellowship Alumni group now totals 60 members.

CSPDWeeks

2023 was the third year of CSTA's Expanded Computer Science Professional Development Week program, funded by an EIR grant from the U.S. Department of Education.

CSTA launched a new webpage dedicated to CSPDWeek events and added a CSPDWeek Playbook to the resource library. CSTA hopes to continue expanding CSPDWeek events and supporting other chapters to run their own local events.



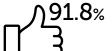
Indiana hosted its second annual inperson CSPDWeek with support from CSTA, CSTA Indiana, Nextech, Code.org, and the Indiana Department of Education. The event incorporated:

S di

different workshop options

275

teacher participants from across Indiana (an increase from 209 participants in 2022), including 162 teachers new to CSPDWeek



satisfaction among attendees



South Carolina hosted its fourth annual, and first in-person, CSPDWeek, with support from CSTA, CSTA South Carolina, The Citadel, Code.org, and the South Carolina Department of Education. The event incorporated:

14

different workshop options

221

teacher participants from across grade levels and experience levels, including 144 teachers new to CSPDWeek

№ № № № №

satisfaction among attendees



Computer Science for English Learners (CSforEL)

Supported by the US Department of Education's EIR program, Computer Science for English Learners (CSforEL) is now in its fourth year of making computer science more accessible to English learners (Els). The program includes

23

teachers for the 2023–2024 school year.

Professional development

Teachers participated in a weeklong professional development in summer 2023 and year-long follow up sessions, with a reported



Building capacity

CSforEL welcomed to the team two new PD facilitators-in-training (FITs), who underwent training alongside three experienced CSforEL professional development facilitators.

We also trained two new School Leadership Network facilitators, who will ensure ongoing equity support and training in participating schools.

The facilitators cared about the participants' success in the PD-pacing, materials, learning strategies were all so intentional. A PD that all teachers should participate in to ensure access and equity in the CS classrooms."



Independent Guidance

Growing list of accredited PD programs

Led by the CSTA PD Committee, CSTA continued the process of reviewing and accrediting high-quality computer science professional development and curriculum programs for K–12 teachers.

All currently accredited programs are listed on the new <u>webpage</u>, including <u>more information</u> about the accreditation process and committee members.

CSTA completed

28

reviews between September 2022 and June 2023

11

programs were accredited or re-accredited this year

CSTA's PD Committee led three virtual PD Provider Summits, designed to bring together computer science PD and curriculum developers to learn, grow, and build community together.



Bringing teacher voice to the policy table

The committee established five components of the <u>Teacher Advocacy Toolkit</u>, with an action plan of training a leader/leaders to support their state and local CS Policies. They presented the toolkit at the Chapter Leaders Learning Series, Mid-Year CLS, and the 2023 CSTA Conference.

Establish and run CSEdWeek, with community-led committee model

CSTA developed a number of CS lessons and resources, mostly centering around a diverse set of young <u>CS Heroes</u> who have already made a huge impact in computer science. (Download their <u>posters</u>! See sample lesson: <u>My CS Hero Poster</u>.)

These resources are incredibly popular, with over

13,000 unique

unique views

Our annual <u>CSEdWeek Kick-Off event</u> featured a panel of four of the CS Heroes. All eleven CS Heroes were recognized for their work by Vice President Kamala Harris.



CSTA Commits to Accessibility

CSTA formalized a commitment, rooted in our <u>organizational</u> <u>values</u>, to make its events, resources, and services accessible to all, regardless of ability. By being explicit about strategies, we aim to model the importance of accessibility and support CSTA members in developing their own knowledge.

From our <u>CS teacher</u> <u>landscape survey</u>, we know that approximately



of US computer science teachers have a disability or chronic condition

This ongoing work has been in partnership with the CS Access working group, led by Elissa Hozore and guided by Richad Ladner, as well as the team at the DO-IT Center, with special thanks to Brianna Blaser. Read more on the new accessibility webpage.

A team of current CSTA Equity Fellows is also developing and curating a set of resources to support CS teachers in increasing accessibility of their instruction. They will publish the results of their work at the next CSTA Conference.

Our accessibility work includes:

- Completing a four-part accessibility training series for staff, led by the DO-IT team
- Ensuring our new website meets WCAG 2.1 AA standards
- Providing necessary
 accommodations to conference
 attendees, including CART
 and ASL interpretation
- Collecting data and feedback regarding disability and our efforts to make content and events accessible



CSTA's Work is not Possible Without the Continued Support of our Members and Partners

Infosys Foundation USA was proud to deepen our partnership with CSTA this year. We are humbled to elevate this cohort of highlytalented CS educators and appreciate the space that CSTA creates for this award annually."

Welcome to Our Newest Partners:

Comcast NBC Universal Kira Learning DoD STEM Ernst and Young Vex Robotics MITRE Imagine Learning



Thank You to Our Partners

Strategic Partners:







Annual Partners:

Amazon Future Engineer

National Science Foundation

United States Department of Education

Infosys Foundation USA

Lockheed Martin

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DoD STEM

Tanium

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2023 CSTA Annual Conference Partners:

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Code Ninjas

CodeHS

CodeWizardsHQ Inc

Codementum

Coder Kids, Inc. DBA Ellipsis

Education

CompuScholar, Inc.

Giant Machines

Learning Blade

Learning.com

LocoRobo Innovations Inc.

National Center For Women & Information Technology

(NCWIT)

National Science Foundation Presidential Awards for Excellence in Mathematics and Science Teaching OKdo

Oracle Academy

PaTTAN

Prodigy Learning

Robotical

Texas Advanced Computing

Center (TACC) at UT Austin

Texas Instruments

UNT CSE

UTeach Computer Science

University of Alabama

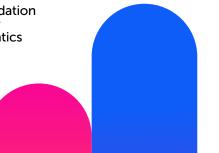
University of Maryland Baltimore County (UMBC)-MAE-Comp Sci Ed

Virginia Tech Computer Science

WestEd

Wyoming Department of Education





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CSTA would like to offer a special thank-you to our Board Members who completed their terms this fiscal year:

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