



COMPUTER SCIENCE



in
ARKANSAS



NATIONAL

GOVERNORS

ASSOCIATION

ARKANSAS MAKES NATIONAL NEWS

Arkansas makes national news for implementing computer science education. In a recent report by Brookings Institution, “Based on prior analysis and expert consultation, we selected 11 country, state, and provincial CS-education case studies with lessons that can apply broadly to other education systems. . . . As such, we have examined information to extract lessons that can lead to successful implementation. This study will focus on the development of CS education in Arkansas.”

The report gave accolades to the governor and his strong leadership skills, as well as “drawing praise from media and advocacy groups alike (Nix, 2017). Code.org, the Computer Science Teachers’ Association (CSTA), and Expanding Computing Education Pathways (ECEP) Alliance even noted in their 2019 “State of Computer Science Education” report that Arkansas has the largest share of high schools that teach CS (89 percent) of any U.S. state (State of Computer Science Education, 2020). The state also received the Frank Newman Award for State Innovation from the Education Commission in 2020 for its CS education initiative (CS for All, 2020). Given this recognition, the state’s CS education programs deserve close examination as other education systems work toward similar outcomes.”

Because of Governor Asa Hutchinson's leadership, he has been named NGA Chairman for a national computer science initiative. The governor stated, “My initiative as chair will be to improve access to computer science education nationwide. Arkansas has become known nationally for our computer science education program, and I want to showcase the efforts in other states and show why this matters and how we can expand computer science education. We will continue to have honest conversations with the White House and seek bipartisan solutions that work for everyone.” For more information on the governor’s national mission, please visit:

<https://www.nga.org/computerscience/>. For a closer look at the Brookings Institution report, please visit:

<https://csforar.info/CSforARBrook21>.



EDUCATION DIRECTOR OF STEM & COMPUTER SCIENCE CONTINUUM



This month, the CSforAR team has highlighted Dr. Tina Moore. In August of 2021, Moore began a new role at ADE as the Director of STEM and Computer Science Continuum to bridge pathways from K-12 to postsecondary education and workforce readiness. Moore received a bachelor of science degree from the University of Arkansas at Fayetteville and a master's degree in education from the University of Arkansas at Little Rock, both in secondary mathematics education. She later completed a specialist degree through Arkansas State University and a doctoral degree through Liberty University in educational leadership, curriculum, and instruction. Moore served as the Dean of Business, Math, and Science at Arkansas State University at Beebe where she led faculty and oversaw curriculum for the division. In 2018, she began at the Arkansas Department of Education as the Division of Elementary and Secondary Education Math Program Manager, leading the math curriculum and standards unit and collaborating with other STEM discipline leadership to integrate the content areas through student-focused, problem-based learning. She spoke with the CSforAR team about how all of these experiences have allowed to follow her pursuit of her passion working for all students to have equitable access to high-quality STEM teaching and learning.



Looking forward... 

Moore stated, "I am incredibly excited to begin this new role as the Arkansas Department of Education Director of Science, Technology, Engineering, and Mathematics (STEM) and Computer Science (CS) Continuum, leading the collaborative work to bridge pathways from K-12 to postsecondary education and workforce readiness.

"Governor Hutchinson's K-12 CS and Computing Initiative led by my colleague, Anthony Owen, has built a strong foundation and achieved remarkable outcomes in CS education for Arkansas. We are now positioned to expand and enhance our state's efforts around CS education and training, including addressing the recommendations of the Arkansas CS and Cybersecurity Task Force related to the continuum. Additionally, I will concentrate on other high demand STEM career fields in Arkansas, such as healthcare and agriculture.

"As a lifelong Arkansan and first-generation college graduate from a lower-income family, I am passionate about creating equitable STEM opportunities for all students. I will strive to consider the needs of traditionally underserved students and focus on diversifying the STEM teacher and workforce pipelines.

"The required CS course in high school is a launching point to engage students and peak their interest in CS. We must ensure that translates into even more students seeking CS certifications and degrees that lead to CS careers. The STEM/CS continuum is broad, encompassing workforce training, two-year and four-year degree programs, and advanced degrees."



STEM & CS CONTINUUM DIRECTOR'S CORNER CONT'D

"High school to postsecondary math pathways must be developed to ensure students are enrolled in meaningful math courses, aligned to their future endeavors, whether in STEM/CS or the humanities. Additionally, transferability of STEM/CS courses among institutions of higher education (IHEs) must be a priority, which will require consensus among IHEs. Common STEM/CS coursework at IHEs will expand concurrent credit options for high school students. To connect our future workforce to Arkansas industries, establishing apprenticeships and internships at the high school, undergraduate, and graduate level must be a focus. Finally, information regarding STEM/CS opportunities must be conveyed and publicized to high school counselors, IHE advisors, students, and families."

Important Partnerships...



"The partners for this work represent a broad group of stakeholders including both K-12 and higher education faculty and leaders, state agencies, business and industry, non-profit community groups, and philanthropic organizations. Various state agencies have relevant connections to building STEM/CS pathways, including multiple divisions and offices within the Department of Education and the Department of Commerce. Forging collaborative relationships among these stakeholders will be essential for success. During initial discussions with several key partners, I have been encouraged by their desire and willingness to share information and ideas. There is already some amazing work going on across our state related to the STEM/CS continuum, and if we can join our efforts, the synergistic impact will be much greater than any of us working in isolation. This is a time-critical matter. Arkansas is in dire need of a skilled STEM/CS workforce **now**, and our usual timeline for change in education and government agencies is not advantageous for the urgent actions needed within our systems. We must remove the paradigmatic barriers to cross sector and interagency collaboration, build upon the existing successful efforts, and move forward expeditiously to create and maintain the state's competitive edge in STEM/CS."

Taking on Computer Science



"In my most recent role as the Division of Elementary and Secondary Education Math Program Manager, I promoted STEM integration in the classroom and desired to learn more about CS. That prompted me to participate in the High School CS and Certification Training, an intense, 30-hour professional development led by the ADE CS team. Whether you are a novice or are somewhat skilled in CS, I highly recommend that educators complete ADE CS team training. An ample set of resources for ongoing study are provided in addition to the face-to-face (in-person or virtual) sessions. I am continuing my CS learning journey through self-study and have also discovered valuable podcasts on data science and cybersecurity.

"The computational thinking required in programming can be applied across other STEM disciplines, and many of the practices directly correspond to the Standards for Mathematical Practice and the Science and Engineering Practices. We must ensure that no matter the STEM course being taught, transferable critical thinking and problem solving skills, aligned to the course content, are a top priority. Those analytical skills will serve students well in any STEM/CS pathway they pursue. Now let's all work TOGETHER to build those pathways from K-12 to postsecondary education and workforce readiness!"



CAMP TSA: FALL LEADERSHIP CONFERENCE



It's time to get registered for CAMP TSA: Fall Leadership Conference! This year we will be having a fun-filled face-to-face day of leadership activities led by your 2021-2022 state officers.

Date: October 26, 2021
Location: Camp Couchdale, 301 Catherine Park Rd,
Hot Springs, AR 71913
Time: 9:00 am - 3:00 pm
Cost: \$15 per student and advisor (This cost includes lunch)

Registration will be through DLG. Please use this link to register for the event: <https://www.registermychapter.com/tsa/ar-flc>

So, gather your TSA members or those interested in TSA and get them ready for CAMP TSA!

CAMP TSA *Exploring Leadership*



Mark Your Calendar

October 26, 2021
9:00 am - 3:00 pm

Set Your GPS

Camp Couchdale
301 Catherine Park Rd
Hot Springs, AR 71913



Register Your Students

\$15.00 per person

2021 TSA Fall Leadership Conference

TECH FEST @ UA LITTLE ROCK



The CSforAR team is excited that CSTechFest is almost upon us! The event is taking place Saturday, October 16th at UALR's Engineering and Information Technology building.

Registered participants may check-in beginning at 7:30 a.m. for morning sessions, which begin at 8:30 a.m. and end at 11:30 a.m. Afternoon sessions start at 12:30 p.m. and end at 3:30 p.m.

If you have questions or would like to volunteer to assist at #CSTechFest, please contact us at CSforAR@ade.arkansas.gov.

Arkansas Department of Health / UALR COVID-19 protocols will be followed. Unfortunately, no day-of registrations will be offered.

AMATEUR RADIO LICENSE TESTING



We are also happy to share that there will be Amateur Radio License Testing available on location at CSTechFest. Participants interested in sitting for this test on this day must follow the directions found at <https://csforar.info/ARLInstructions> by October 13th. There is a \$15.00 fee due the day of the exam required by the FCC to sit for this test.

SESSION OPTIONS:

- "Hamming" up Computer Science - Amateur Radio as a precursor to CS skills
- VEX Robotics
- IoT Workout - Self-Driving Car
- Introduction to Electronics and Breadboarding with Arduino
- Drawing with Java
- CSforAR Cybersecurity
- Would you like some Pi with that? - An introduction to physical computing with the Raspberry Pi
- Introduction to the Arcade: Chromebook-friendly Game Development
- Snoof Coding (Where puppetry and coding intersect)

Full descriptions of the sessions can be found here:

<https://csforar.info/CSforARNews0921>



LEARNING BLADE CORNER



Greetings Arkansas Educators,

Are you looking for quality CS activities to supplement your curriculum? Come join our webinar on October 28th at 3:30 pm CT to learn more.

CS Supplement Activities Webinar - October 28, 2021:

Register Here: <https://tinyurl.com/LBARwebinar>

Learning Blade offers you more than 400 online CS/STEM/CTE activities that are engaging for your students as they explore the world of Cybersecurity. Whether writing code for websites, building mobile applications, working with big data, or even perfecting the user experience, you want to make sure your work is as secure as it can possibly be. Allow your students to be able to analyze and see if they are a target.

The screenshot shows a digital activity interface. At the top, a green header contains a magnifying glass icon and the text 'Intro to Cybersecurity'. Below this, the main content area has a title 'Cybersecurity Protects Our Modern World' and three paragraphs of text. To the right of the text is a photograph of a worm crawling on a computer hard drive. At the bottom of the interface, there is a green bar with 'Page 1 of 15' and 'V125', a star rating system with three stars, a 'Sound is Off' icon, an 'Exit' button, and navigation arrows.

Do you want hands-on activities that are low cost and do not require much prep time?

Our Mission Challenges offer the perfect solution for you to add low-cost hands-on activities to your classroom. For example, use our “code an app prototype” challenge to have your students design an app using simple, free online programming tools.

Sign up for your free account provided by Governor Hutchinson's Computer Science Initiative, the Arkansas Department of Education, in partnership with the Arkansas Public School Resource Center at www.learningblade.com/AR.

For more information or to request a webinar at a time that works best for you, email info@learningblade.com



NATIONAL CENTER FOR WOMEN & INFORMATION TECHNOLOGY



The NCWIT Award for Aspiration in Computing (AiC) honors women in grades 9 through 12 who are active and interested in computing and technology, and encourages them to pursue their passions. Award for AiC recipients are chosen for their demonstrated interest and achievements in computing, proven leadership ability, academic performance, and plans for post-secondary education. To date, nearly 8,600 women have been honored with the Award for AiC.

The multi-tiered award structure includes Winner and Honorable Mention at the national and regional levels. Certificate of Distinction designations at the national level and Rising Star designations at the regional levels are also tiers. These awards serve all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, all U.S. overseas military bases, and Canada. Regional Affiliate Award programs are hosted in 79 locations nationwide by NCWIT Alliance member organizations—a powerful, national network of universities, companies, non-profits, and government organizations working to increase the influence and meaningful participation of girls and women from every community.

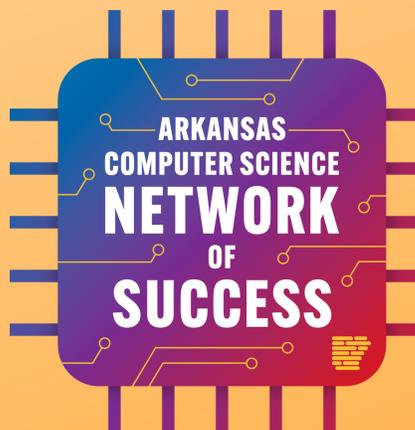
Students can apply online at www.aspirations.org/AiCHSAward, beginning September 1, 2021, and submit their completed application no later than 11:59 pm EST on November 5, 2021.



**AWARD FOR
ASPIRATIONS
IN COMPUTING**
an NCWIT Award

NCWIT is a non-profit community that convenes, equips, and unites more than 1,100 change leader organizations to increase the influence and meaningful participation of girls and women from every community—at the intersections of race, ethnicity, class, age, sexual orientation, and disability status—in the influential field of computing, particularly in terms of innovation and development. Find out more at www.NCWIT.org.

REMINDER FOR NETWORK OF SUCCESS PARTNERS



Mark your calendar for **Nov. 8, 2021**.

The NOS participants will be meeting to work on their communication plan and adding to their NOS Notebook. Please plan to be in either the **morning** (8:30 - 11:30) or **afternoon** (12:30 - 3:30) session.

It will be held in the CS Coffee Cafe:
<https://bit.ly/ARCSCoffee>



THE GREAT ARKANSAS HISTORY VIDEO GAME CODING COMPETITION HAS RETURNED

It's begun! An epic adventure awaits!

That's right, the Great Arkansas History Video Game Coding Competition has entered its third year. This year, we opened a bit earlier and look to close the submission window in early March.

The theme for this year is **My Favorite Arkansas Town**.

We invite you to tell us about what makes your favorite town special and interesting. It could be its founding, a local natural feature, an annual festival, or anything that makes it unique and cool. Need some inspiration? Visit your library, your mayor, local parks, or industry. You don't even have to live there, as long as it's a great place in our great state. Because every place is unique, we expect any kind of game could be used. So get creative, flex those coding muscles (large or small), and tell us your town's story. We look forward to playing it.

This competition is open to Arkansas students in the 4th through 8th grade. By emphasizing storytelling, state history, and coding, this competition will allow students to demonstrate coding abilities while supporting literary growth and expanding their knowledge of Arkansas History.

Contest rules can be accessed at: <http://bit.ly/ARCSHistCompRules>. An estimated announcement of the winner will be made on or before May 15th.

For more information, please contact a member of the CS Specialist team at: CSforAR@ade.arkansas.gov.



THE OFFICIAL COMPETITION WEBPAGE CAN BE VIEWED ON THE DIVISION OF ELEMENTARY AND SECONDARY EDUCATION WEBSITE AT [HTTPS://BIT.LY/ARCSHISTCOMP](https://bit.ly/ARCSHISTCOMP)



INNOVATION GRANT AWARDEES

VISIT [BIT.LY/ARCSPD](http://bit.ly/ARCSPD) FOR MORE INFORMATION AND LINKS TO REGISTER!

Are you looking for a way to make an impact in your classroom? Do you have some innovative ideas, but lack the funds? You should really apply for an innovation grant! This program has been granting funds for classrooms and districts across the state for 5 years!

This opportunity includes up to \$250,000 in total reimbursement funding that has been allocated for the purchase of curriculum, software licenses, non-fundamental equipment, professional development, student incentives, and other approved expenses that directly support the instruction of the ADE K-12 Computer Science and Computing Standards.

Selected schools are required to submit an official ADE grant application, budget and budget narrative, and other documentation and reports throughout the grant process.

The funding for these one-time grants is being provided by the ADE Office of Computer Science and is subject to the availability of funds appropriated by the legislative act.

<https://adecm.ade.arkansas.gov/ViewApprovedMemo.aspx?Id=4621>

This year, the following 16 schools were selected from a total of 30 applicants, based on proposals that indicated efforts to expand their computer science program and implement innovative best practices, and will each receive grants totaling \$207,722.94 from the Arkansas Department of Education Office of Computer Science.

Beryl Henry Elementary in Hope - \$24,856.00
Yellville-Summit High School in Yellville - \$24,050.00
Rose Bud High School in Rose Bud - \$22,560.89
Greenbrier Junior High School in Greenbrier - \$19,877.00
Harrison High School Conversion Charter in Harrison - \$19,650.00
Bauxite High School in Bauxite - \$19,311.00
Elkins High School in Elkins - \$19,178.43
Fouke Elementary School & Paulette Smith Middle School in Fouke - \$12,826.67
Mineral Springs High School & Elementary School in Mineral Springs - \$10,829.73
Arkansas Virtual Academy Elementary and Middle School in Little Rock - \$8,000.00
Carlisle High School in Carlisle - \$7,496.32
Harrisburg High School in Harrisburg - \$6,754.32
Westside High School in Jonesboro - \$5,715.00
Perryville High School in Perryville - \$3,719.38
Valley View Public Schools in Jonesboro - \$2,549.20
Magnet Cove Middle School in Malvern - \$349.00



UPCOMING TRAINING

bit.ly/CSforARPD

#CSFORAR COFFEE CAFE

bit.ly/ARCSCoffee

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