



COMPUTER SCIENCE

in

ARKANSAS



2021 ARKANSAS AFFILIATE ASPIRATIONS IN COMPUTING AWARDS

The NCWIT Aspirations in Computing (AiC) Educator Award states it identifies exemplary formal and informal educators who play a pivotal role in encouraging 9th-12th grade students who self-identify as women, genderqueer, or non-binary to explore their interest in computing and technology. This year, out of 150 awardees, three Arkansas educators were recognized for their exemplary work.

Shanta Calhoun has been named the 2021 Arkansas Aspirations in Computing (AiC) Educator Award winner. The award recognizes these educators for their efforts to promote gender equity in computing.

Calhoun is a computer science teacher at Pine Bluff High School in Pine Bluff, Arkansas. She is a non-traditional business teacher who fell in love with computer science. She is the Technology Student Association advisor and the Pine Bluff High School robotics coach where her team participates in the First Robotic and Little Rock BEST robotic competitions. She is the director of the Pine Bluff School District computer science summer camp for students grade 7-12.



Ashley Kincannon, a teacher at Lake Hamilton Junior High School, and John Mark Russell, a teacher at Bentonville Ignite, were recognized as 2021 Arkansas Affiliate Educator Award Honorable Mention awardees. You can read their bios [here](#).



The NCWIT Award for Aspirations in Computing (AiC) states it also honors 9th-12th grade students who self-identify as women, genderqueer, or non-binary for their computing-related achievements and interests, and encourages them to pursue their passions. Award recipients are selected based on their aptitude and aspirations in technology and computing, as demonstrated by their computing experience, computing-related activities, leadership experience, tenacity in the face of barriers to access, and plans for postsecondary education. Since 2007, more than 17,000 students have received an Award for AiC. This year Arkansas had 32 Awardees. You can find out more about these students [here](#).

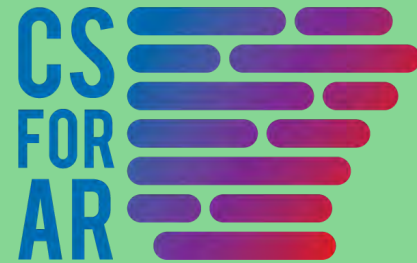


WINNERS OF THE GOVERNOR'S FIFTH ANNUAL ALL-REGION CODING COMPETITION

On Friday, March 5, 2021, Governor Asa Hutchinson and the Arkansas Department of Education announced the 17 teams advancing to the Fifth Annual All-State Coding Competition on May 1, 2021.

“COVID changed almost everything, including this year’s regional coding competition, which was held virtually for the first time,” Hutchinson said. “Regardless, competing off-site did not dampen the enthusiasm of the more than 100 teams that participated. All of these students are on a path to a bright future because of the work they have put into learning to code. Congratulations to the 17 teams that are advancing to the state competition in May.”

The following teams have been selected to advance to the All-State Coding Competition.



- De’Lion Summerville, Joshua LeVar, and Colin Phillips from Arkadelphia High School in Arkadelphia
- Tristan Goodell, Trey Clark, and Joshua Stallings from the Arkansas School for Mathematics, Sciences, and the Arts in Hot Springs
- Caleb Jones, Anish Leekkala, and Katherine Pearce from Bentonville High School in Bentonville
- Ryder Johnson, Karina Batra, and Shorna Alam from Bentonville West High School in Bentonville
- Braden Pierce from Bryant High School in Bryant
- Luke Haskins, Zachary Kelly, and Christopher Sayers from Cabot High School in Cabot
- Andrew Baker, Aaron Tran, and Jacob Collier-Tenison from Central High School in Little Rock
- Alex Prosser, David Saavedra, and Titus Johnson from Clinton High School in Clinton
- Ethan Moss, Brian Russell, and Matthew Ablondi from Conway High School in Conway
- Lucas Kellar, Luke Lyons, and Drake Mayes from Don Tyson School of Innovation in Springdale
- Elijah Keen, Spencer Knight, and Sergio Markin from eStem High School in Little Rock
- Julian Sanker, Owen Bell, and Ganer Whitmire from Haas Hall Academy in Fayetteville
- Toby Reid, Clayton Boothe, and Hana Lovett from Maumelle High School in Maumelle
- Grant Palasak, Keidan Smith, and Matthew Coutts from Rogers High School in Rogers
- Joshua Willard, Aldan Garner, and David Daniel from Rogers New Technology High School in Rogers
- Reid Dutton, Tony Chen, and Jessie Beatty from Star City High School in Star City
- Logan Heinzelman, Evan Watson, and Connor Stephens from Stuttgart High School in Stuttgart

The All-Region Coding Competition was a digital event that was held Feb. 26, 2021. More than 100 teams participated in the event and were scored by the ADE Office of Computer Science team using a common rubric and process. That process determined the top 16 teams to invite to the state-level event. The school that produced the first-place team at the state competition in 2020, the Don Tyson School of Innovation in Springdale, received an automatic invitation to send a team to the state competition.

Each member of the first-place team at the state competition will receive a \$2,000 award that will be deposited into a 529 College Savings Plan. Each member of the second-place team will receive a \$1,000 award deposited into a 529 College Savings Plan, with each member of the third-place team receiving a \$500 award deposited into a 529 College Savings Plan. In addition, the schools that register/sponsor the teams placing first, second, and third will receive \$10,000, \$6,000, and \$4,000, respectively, to support their computer science programs. The prizes and competition expenses are provided by a grant from Verizon to ARCodeKids.

Schools with teams advancing to the state competition will receive an official invitation with details by March 30, 2021. For more information visit [here](#).

WOMEN'S HISTORY MONTH

March is Women's History Month and we are here to celebrate different women who have made computer science what it is today and what it will be in the future. From Grace Hopper, Mary Jackson, Katherine Johnson, Raye Montague (see last [month!](#)), Dorothy Vaughan, and innumerable others, these women have paved the way for technology and our daughters who will pick up the charge.

Some noteworthy news from this month:

- On March 1, 2021, NASA paid tribute to Mary W. Jackson, its first African American female engineer. As Black History Month came to a close on Friday, the agency officially named its Washington, D.C. headquarters in her honor. - <http://bit.ly/3cmb9q5>
- The new NG-15 Cygnus cargo craft by Northrop Grumman has been named the S.S. Katherine Johnson ahead of its trip to the International Space Station later this month. - <http://bit.ly/3vjkEyT>
- Mae C. Jemison is an American astronaut and physician who, on June 4, 1987, became the first African American woman to be admitted into NASA's astronaut training program. On September 12, 1992, Jemison finally flew into space with six other astronauts aboard the Endeavour on mission STS47, becoming the first African American woman in space. - <https://www.biography.com/astronaut/mae-c-jemison>

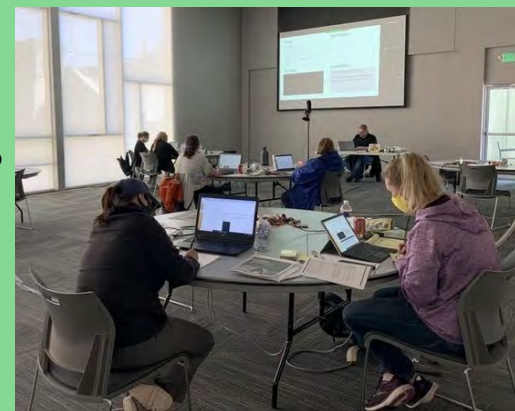


ASMSA CS PRAXIS BOOT CAMP

ASMSA's Coding Arkansas' Future program recently hosted two Computer Science Praxis Boot Camp for teachers working to add a computer science endorsement to their license.

The workshops were redesigned this year to provide equal access to remote learners; all presentations, exercises, and quizzes were delivered through an online learning management system, giving participants immediate feedback on their progress. Participants have ongoing access to the materials, which will allow them to continue practicing the skills they are still building. There were no costs to participants for the workshop thanks to the support of grants from the Arkansas Department of Education and the #CSforAR Initiative.

For additional information on upcoming offerings from Coding Arkansas' Future, visit <http://bit.ly/3crr5HP>.



GREAT ARKANSAS HISTORY VIDEO GAME CODING COMPETITION

As a reminder, the Arkansas Department of Education (ADE) Office of Computer Science announced the second year of the Great Arkansas History Video Game Coding Competition (GAHVGCC).

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

The contest submission window will open on March 31, 2021, and will close on April 5, 2021 at noon. A submission link will be available on the main competition page at that time.



Teams will consist of no more than six students in grades 4-8, and is open to public, private, and homeschool students with Arkansas residency.

This year's theme for the Great Arkansas History Video Game Coding Competition is "The Old Gray Lady" and her influential role in Arkansas History.

Winning teams will be announced in May 2021.

The official competition webpage can be viewed on the Division of Elementary and Secondary Education website at: bit.ly/ARCSHistComp.

Contest rules can be accessed at: bit.ly/ARCSHistCompRules.

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

BOOK HIGHLIGHT: SECRET CODERS: PATHS & PORTALS

#ARKIDSCANCODE / #RISEARKANSAS

Secret Coders: Paths & Portals was written by Gene Luen Yang, and illustrated by Mike Holmes.

“Gene Luen Yang is the National Ambassador for Young People's Literature and is a MacArthur Fellow, a recipient of what's popularly known as the MacArthur "Genius" Grant.

There's something lurking beneath the surface of Stately Academy—literally. In a secret underground classroom Hopper, Eni, and Josh discover that the campus was once home to the Bee School, an institute where teachers, students, and robots worked together to unravel the mysteries of coding. Hopper and her friends are eager to follow in this tradition and become top-rate coders. But why are Principal Dean and the rugby team suddenly so interested in their extracurricular activities?

From graphic novel superstar (and high school computer programming teacher) Gene Luen Yang comes the second volume of Secret Coders, Paths & Portals, a wildly entertaining new series that combines logic puzzles and basic programming instruction with a page-turning mystery plot!” - <https://us.macmillan.com/books/9781626720763>

A WIRED article, “[5 Reasons You Should Be Reading Secret Coders](#)”, lists reasons for reading the book series:

1. “You'll Be Learning Coding from a Professional - By design, Secret Coders is a series of lessons as well as a story.”
2. “Secret Coders Might Be Educational, But It's Not Boring - Yes, Yang's series is meant to teach kids, but he worked hard to make sure it didn't feel like going to school.”
3. “Code: It's Not Just For Computers Anymore - Yang admits that coding is a passion of his, but he sees value in the skills required for the discipline beyond just being able to tell computers what to do.”
4. “Comics' Hidden Superpower, Pedagogy! - "In comics, past, present, and future all co-exist on the page side by side, so it allows you [as a reader] to just dwell on the moment. It allows you to absorb the material a little bit better, especially if you find it confusing," Yang says.”
5. “You'll Enjoy It—But It Might Change Your Kid's Life - “I know a lot of kids find the inner working of computers intimidating, and I hope Secret Coders will help them with that.,” Yang says.”



Introducing Learning Blade Corner - a monthly snapshot of happenings with Learning Blade in AR.

This past month, Learning Blade hosted a National User Group with educational leaders and teachers from 30 different states. The event featured a keynote by AR State Director of Computer Science, Anthony Owen on the importance of CS initiatives in AR including the availability of Learning Blade's "Intro to CS" module, which Mr. Owen noted "fits right inside our plan within Arkansas to ensure that computer science and computing was accessible to all and exciting to all. It gives a different approach to just the theoretical teaching of a concept to a student, really understanding what they can do with that content once they get out."

The event also featured CTE educator James Wilson, from Lincoln Junior High School in Bentonville, who shared his experience using Learning Blade in his CTE classes. According to Mr. Wilson, “Learning Blade is an incredible CTE resource supporting the Perkins V mandate to offer more career exploration in middle school years and our students enjoy the context.”

The event included Keynote speakers and breakouts by teachers from multiple states using Learning Blade.

You can see a recording of the main keynote sessions at this link - <https://youtu.be/OdQjVAPXgdw>



TECHNOLOGY STUDENT ASSOCIATION STATE PRESIDENT PROFILE

The feature this month focuses on TSA State President Jake Fannon, a Senior at Bryant High School. Jake previously served as the TSA State Historian and has been a TSA member for 4 years. Jake participated in the Arkansas's Governor's school in 2021 and was inducted as a member of the Bryant chapter of the National Honor Society on November 17, 2019. Jake is certified in Autodesk, and has won 2 regional excellence awards, 2 regional tournament champion awards, as well as Excellence and Tournament Finalist at the 2020 State championship at the VEX Robotics Competition. Jake plans to attend Louisiana Tech this fall with a major of Mechanical Engineering.



"As TSA President I have gained valuable experience in leadership and policy," Jake said.

"I'm pleased to say that this year we have actually enacted changes in the TSA bylaws that have been talked about since I was first involved with TSA. I started participating in the Bryant High chapter of TSA as a sophomore, and became involved at the state level during my junior year. Now as a senior I can truly appreciate everything I have learned from my time in the organization. I've had a passion for engineering and technology from a young age, but it was not until the past few years I realized I enjoy the human side of STEM just as much. "

Jake's TSA Advisor, Joanna Ritchie thinks very highly of her student. She said, "Jake is a highly driven and focused young man who is passionate about robotics and engineering!"

"He is a natural leader who leads by example and strives to motivate others to be the best they can be. It has been a pleasure watching him grow and learn, his graduation will definitely leave a hole in the department. We are very proud of Jake here at Hornet Engineering, way to Make it Happen!"

www.arkansastsa.org

ARKANSAS TSA STATE CONFERENCE

APRIL 15-16, 2021
VIRTUAL CONFERENCE
CONFERENCE INFORMATION @
[HTTPS://BIT.LY/ARTSACTC2021](https://bit.ly/artsactc2021)

For more information contact
Tammy Glass @ tammy.glass@arkansas.gov

HIGH SCHOOL HACK

On Saturday, February 13th, Nick Seward and students from the Arkansas School of Math, Sciences, and the Arts hosted the 3rd annual High School Hack. This event is a fun, exciting, and fundamentally fresh approach at allowing students to explore computer science concepts in an engaging way.

Seward and his students not only run the live event, but also the curate and deploy the challenges each year. This day-long event challenged students from all over the state to solve technical puzzles in a cybersecurity capture-the-flag Jeopardy-style event, where each challenge has points attributed to it after a team submits a text string which has been encrypted in some way (known as a “flag”).

The students who participated were not required to have any prior experience or prerequisite knowledge; only a willingness to participate and have fun. Teams were typically composed of two to four students from the same school, and there was an online scoreboard for teams to track point totals.

The challenges ranged in difficulty from easy through hard and several were two- or three-part puzzles. They were also separated into numerous categories including physical challenges, programming, and various others. Cryptography had its own category where students deciphered puzzles to find the hidden messages both within text and using steganography. Students also scored points through web page manipulation, networking, forensics, file manipulation, and so much more.



Even the team names reflect the fun nature of this event. First place at this year’s event went to *Long Chipmunk*. Second Place went to *MehNameJeff* and third place went to *DisCord3: The Return of the Ping-Win*.

Interested in what a flag may look like? Try to solve this puzzle:

I saw a strange message etched in chalk on the sidewalk today! It said this:
LJWXQ2C2GN2EUWD2KZIFIRSZPJJEMOKKKZBUMOI=



ONLINE HIGH SCHOOL COMPUTER SCIENCE CERTIFICATION AND PREPARATION PROFESSIONAL DEVELOPMENT

Is there anything out there that will cause Arkansas teachers to give up FIVE Saturdays in a row? How about Computer Science? For five consecutive Saturdays, 19 Arkansas teachers participated in the “High School Computer Science Certification and Preparation” professional development led by statewide computer science specialists Zack Spink, Jim Furniss, Lori Kagebein, and Leslie Savell. These teachers are now eligible to apply for the 5016 approval code that can be added to their licensure.

This 30-hour training helps to prepare teachers to take the Praxis 5652 Computer Science exam as well as introduces them to the Arkansas high school computer science standards. When participants were asked “What aspects of this training were most useful or valuable?” they replied:

- “The hands-on practice...”
- “It was all so informative. Going back and watching the videos really provided clarity after the daily introduction.”
- “Honestly, everything. This training was really well rounded, and I learned a lot”
- “That’s hard to narrow down. This was all new to me so I had no idea what to expect. I am thankful for all ... the different resources.”

If you have any interest in adding computer science to your teaching licensure, then this professional development training is a great place to start.

Also, please remember that the CS team of specialists will continue to support you even once the session is complete. We will work with your schedule to offer the help you need. CS Statewide Specialist Jim Furniss said, “We are here to make you successful.”

Contact us at csforar@arkansas.gov to discuss your next steps to join the Arkansas Computer Science and Computing Initiative as a computer science teacher.



UPCOMING TRAINING

bit.ly/CSforARPD

#CSFORAR COFFEE CAFE

bit.ly/ARCSCoffee

CONTACT US

Four Capitol Mall
Little Rock, AR 72201

CSforAR@arkansas.gov

March 2021



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