

# Competitions Relevant to CS/IT Students

As Computer Science becomes a distinctive yet integrated discipline in K-12, several of our CTSOs are offering competitive events that relate to the skills our students in the CS/IT pathways are learning. This list is to open our students up to a wide variety of opportunities where they can showcase their talents.

**FBLA (Future Business Leaders of America)**. The Computer Science courses in Georgia reside under the IT pathways. These are found within the domain Business and Computer Science. As a result, FBLA has offered CS related competitions for many years and their offerings continue to grow.

- Coding and Programming
- Computer Game & Simulation Programming
- Computer Problem Solving
- Cyber Security
- Database Design & Applications
- E-business
- Introduction to Information Technology
- Management Information Systems
- Mobile Application Development
- Network Design
- Networking Concepts
- Website Design



**TSA (Technology Student Association)**. TSA addresses broadly the use of technology in our society. This necessarily includes computing technology and TSA has several computing technology competitions at both the middle school and high school level. Two recent additions (IT Fundamentals+ and Cybersecurity) are associated with CompTIA certifications.

- High School
  - 3D Animation
  - Animatronics
  - Coding
  - Computer Integrated Manufacturing
  - Cybersecurity
  - Debating Technological Issues
  - Engineering Design
  - Essays on Technology
  - IT Fundamentals+
  - Software Development
  - System Control Technology
  - Technology Problem Solving
  - Video Game Design
  - Webmaster
- Middle School
  - Challenging Technology Issues
  - Coding
  - Essays on Technology
  - Inventions and Innovations
  - Microcontroller Design
  - Problem Solving
  - STEM Animation
  - System Control Technology
  - Video Game design
  - Website Design

**Skills USA.** Skills is dedicated to developing a skilled workforce through personal, workplace, and technical skills. This is another place our students may find expression and productive growth as they explore where they might apply what they've learned to various context.

- 3-D Visualization and Animation
- Advertising Design
- Computer Programming
- Cyber Security (Demonstration)
- Electronics Technology
- Engineering Technology Design
- Information Technology Services
- Interactive Application and Video Game Design
- Internetworking
- Mobile Robotics Technology
- Principles of Engineering/Technology
- Robotics: Urban Search and Rescue
- Robotics and Automation Technology
- Technical Computer Applications
- Web Design

**GASTC (Georgia Student Technology Competition).** The Georgia Educational Student Technology Competition (GASTC) is an annual student technology competition produced by the Georgia Educational Technology Consortium.

- 3D Modeling
- Animation
- Audio Production
- Device Modification
- Digital Game Design
- Digital Photo Production
- Graphic Design
- Internet Applications
- Mobile Apps
- Multimedia Applications
- Project Programming
- Robotics

**FIRST Robotics.** FIRST is another competitive structure that engages students K-12. They utilize design challenges with LEGO robotics for young students and broader design options for students in upper grades.

**Science Olympiad** Science Olympiad comes in many shapes and sizes. At the K-6 level, an Elementary Science Olympiad (ESO) program can come in the form of a competitive tournament, a hands-on science Fun Day or an expert-filled Science Olympiad Fun Night. In grades 6-12, Science Olympiad functions much like a football or soccer team, requiring preparation, commitment, coaching and practice throughout the year.

**Games for Change** Games for Change empowers game creators and social innovators to drive real-world change using games and technology that help people to learn, improve their communities, and contribute to make the world a better place. We convene stakeholders through our annual G4C FESTIVAL and foster the exchange of ideas and resources through workshops and consulting projects. We inspire youth to explore civic issues and learn 21st-century and STEM skills through our STUDENT CHALLENGE and train educators to run game design classes on impact games.

**Cyber Patriot** CyberPatriot is the National Youth Cyber Education Program created by the Air Force Association (AFA) to inspire K-12 students toward careers in cybersecurity or other science, technology, engineering, and mathematics (STEM) disciplines critical to our nation's future. At the center of CyberPatriot is the National Youth Cyber Defense Competition, which puts teams of high school and middle school students in the position of newly hired IT professionals tasked with managing the network of a small company. Through a series of online competition rounds, teams are given a set of virtual operating systems and are tasked with finding and fixing cybersecurity vulnerabilities while maintaining critical services. The top teams in the nation earn all-expenses-paid trips to Maryland for the National Finals Competition where they can earn national recognition and scholarship money.

**Cyber Start America** The expanded version of “GirlsGoCyber Start”, high school girls and boys will master new skills while working their way through a vast online training game and battling for cash prizes! Take part on your own or join a club to compete alongside friends.