

**VIRTUAL**

# 2022

WESTERN ACADEMY  
SUPPORT & TRAINING CENTER

WINTER ICT EDUCATORS' CONFERENCE



# ACCELERATE INTO THE FUTURE

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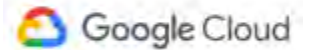
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# WC22 SPONSORS

	<b>DAYTONA</b> Student to Professional [Workforce Development]	<b>GRAND PRIX</b> Cutting Edge [Emerging Technology]	<b>LE MANS</b> Best Practices [In Teaching ICT]
8:30-9:00a	<b>James Stanger</b> “Fast-tracking workforce transformation: Perspectives and “mythconceptions” about creating trusted IT workers”		
9:00-9:30a	<b>Olivia Adams</b> “What’s Happening Today with McLaren Racing, and What This Means for Your Students”		
9:40-10:10a	[1.1] <b>CompTIA</b> “Student Success in the Tech Economy”	[2.1] <b>ECS</b> “How to Build Responsible AI: 6 Essential Elements of a Responsible AI Model”	[3.1] <b>Florida State College at Jacksonville</b> “The Nuts and Bolts of a Two-Year Data Science Degree”
10:20-10:50a	[1.2] <b>Camden Dream Center Technology Training School</b> “U.S. Department of Labor Registered Apprenticeship Programs”	[2.2] <b>Cisco Networking Academy</b> “Network Programmability Initiative”	[3.2] <b>Ohlone College, Northern Illinois University</b> “Esports Now: 2021 and Beyond!”
11:00-11:30a	[1.3] <b>Cisco Networking Academy</b> “Cisco Talent Bridge: Helping You Help Your Learners Get a Job”	[2.3] <b>University of South Carolina</b> “Virtual Labs on SDN and P4 Programmable Switches”	[3.3] <b>Amazon Web Services</b> “AWS Introduction To the Cloud: New For K12”
<b>LUNCH</b>			
12:30-1:00p	[1.4] <b>Red Hat Academy</b> “Program Overview & Updates”	[2.4] <b>FHSU / Network Development Group</b> “Custom Pods for Cybersecurity, Competition, and More!”	[3.4] <b>Texas State Technical College</b> “Integrating Google Applied Digital Skills”
1:10-1:40p	[1.5] <b>UiPath</b> “Enabling Students for the Future of Work with RPA”	[2.5] <b>Convergence Technology Center</b> “Virtualizing Internet of Things Labs”	[3.5] <b>National Institute for Women in Trades, Technology &amp; Science</b> “Strategies to Help Your Female Students Succeed in the Lab”
1:50-2:20p	[1.6] <b>ITSS 2020 - Collin College</b> “Use Employer-Vetted IT Job Skills to Give Students a Hiring Advantage”	[2.6] <b>WASTC</b> “Teaching CyberSecurity with the Raspberry Pi”	[3.6] <b>Reinvented Inc.</b> “Princesses with Powertools: Empowering the Next Generation of Girls to Pursue STEM”
2:30-3:15p	<b>GRAND PRIX SHOWCASE CIRCUIT</b> [Raffle Race]		

# THURSDAY AGENDA



	<b>DAYTONA</b> Student to Professional [Workforce Development]	<b>GRAND PRIX</b> Cutting Edge [Emerging Technology]	<b>LE MANS</b> Best Practices [In Teaching ICT]
<b>8:30-9:00a</b>	<b>Pierre Laurent “Kids on Tech”</b>		
<b>9:00-9:30a</b>	<b>Wendy Pfeiffer “Our Robot Overlords and the Future of Tech”</b>		
<b>9:40-10:10a</b>	[1.7] <b>Alteryx</b> “Make Analytics Education Breakthroughs with Alteryx Designer”	[2.7] <b>Apple Inc. and Pasadena City College</b> “Creative Coding with Swift”	[3.7] <b>CYBER.ORG</b> “Building the Cybersecurity Workforce - One Teacher at a Time”
<b>10:20-10:50a</b>	[1.8] <b>Google Cloud</b> “Preparing Your Students for a Cloud-First World”	[2.8] <b>LoneStar College - Montgomery</b> “Incorporating Secure Software Development Tools and Frameworks When Teaching Programming Languages”	[3.8] <b>Cyber Skyline</b> “The NCL: From Curriculum to Careers”
<b>11:00-11:30a</b>	[1.9] <b>EC-Council</b> “Cybersecurity Essentials Skills to Entry Level Employment”	[2.9] <b>Cisco Networking Academy</b> “Technical Updates: Cisco Networking Academy”	[3.9] <b>Cal Poly SLO &amp; Coast USD</b> “Hacker Gadgets... Make Cyber More Fun and Less Scary “Take a Byte out of Cyber”!”
<b>LUNCH</b>			
<b>12:30-1:00p</b>	[1.10] <b>Cisco Networking Academy</b> “Cybersecurity: A Future Proof Career”	[2.10] <b>Forensic Recovery, LLC</b> “An Incident Responder’s Wish List”	[3.10] <b>Cypress College</b> “Best Practices in Developing and Implementing an Effective Middle School to College Cybersecurity Pathway”
<b>1:10-1:40p</b>	[1.11] <b>BACCC &amp; IBM</b> “Workplace Skills in Tech Courses”	[2.11] <b>Holy Cross College at Notre Dame</b> “AI Tools and Modules for any Program”	[3.11] <b>Coastline College</b> “Digital Forensics & Career Paths for CyberTech Girls at Coastline College”
<b>1:50-2:20p</b>	[1.12] <b>Riverside City College</b> “Cyberpreneurship”	[2.12] <b>CCSF</b> “Smart Contract Security and Glow”	[3.12] <b>Bay Area Community College Consortium/DVC</b> “The Bay Cyber League: A NSF ATE Project”
<b>2:30-3:15p</b>	<b>GRAND PRIX SHOWCASE CIRCUIT</b> [Raffle Race]		

# FRIDAY AGENDA

# TRACK 1: STUDENT TO PROFESSIONAL

## Workforce Development Day 1



9:40-10:10a	Student Success in the Tech Economy	<b>CompTIA</b> Kirk Smallwood	There is no hotter job market than IT, with nearly 1 MILLION open IT jobs and growing. Even during a pandemic, things are not slowing down. Learn what is fueling this demand, what knowledge, skills, and abilities employers seek in qualified workers and the tremendous opportunity for academic institutions. Also, learn how CompTIA works with its partners to help them prepare for student success and the growing importance of industry-recognized certifications for career readiness.
10:20-10:50a	U.S. Department of Labor Registered Apprenticeship Programs	<b>Camden Dream Center Technology Training School</b> Keith Davis	Diversity, equity and inclusion is more easily achieved when using registered apprenticeship programs. According to the United States Department of Labor, nearly 90% of all employers with a registered apprenticeship program recommend the model for workforce development.
11:00-11:30a	Cisco Talent Bridge: Helping You Help Your Learners Get a Job	<b>Cisco Networking Academy</b> Jesal Gandhi, Trent Dorroh	One of the biggest challenges our learners have is making that jump from where they are to where they want to be in their careers. We'll talk about how to find a tech job in any industry. We'll share information on resources from Cisco Talent Bridge for Networking Academy and how you can use them to educate your learners on getting a tech job in any industry as well as preparing to join the workforce.
12:30-1:00p	Red Hat Academy - Program Overview & Updates	<b>Red Hat Academy</b> Lea Zagorin, Jeff Dubé	The Red Hat Academy North America team will provide an overview of the Red Hat Academy program and outline exciting new developments coming soon for Red Hat Academy partner schools. In addition, Red Hat Academy provides no-cost access to Red Hat training and curriculum for educational institutions.
1:10-1:40p	Enabling Students for the Future of Work with RPA	<b>UiPath</b> Kristina Kaldon	Be a Robotic Process Automation (RPA) pioneer and empower your students with the skills and connections they need to become automation experts. From short courses to full developer certifications, we provide the material for students and educators to secure skills for the future of work.
1:50-2:20p	Use Employer-Vetted IT Job Skills to Give Students a Hiring Advantage	<b>ITSS 2020 - Collin College</b> Ann Beheler, Christina Titus	Move your graduates to the winners' circle for high-paying Tech positions! With leadership from over 250 IT/Cybersecurity employers nationally, the "IT Skills Standards" National Science Foundation grant has produced future-facing, employer-led Skill Standards for the most critical, in-demand IT occupations. Participants will learn the process used to identify and vet these skills and how to identify gaps in their curriculum. They will also learn how to access the standards to work with their business leaders to update their curriculum effectively.

# TRACK 2: CUTTING EDGE

## Emerging Technology Day 1



9:40-10:10a	How to Build Responsible AI: Six Essential Elements of a Responsible AI Model	<b>ECS</b> Aaron Burciaga	New ethical and moral questions continue to emerge as we expand how we use artificial intelligence in business and government. This is undoubtedly a good thing. Developing new technologies without incorporating ethics, morals or values would be careless at best, catastrophic at worst. This is also a gray area. For years, I've used "ethical AI" as a catchall phrase for the standards and practices that principled organizations should build into their data science programs. But what exactly is ethical? What is moral? According to whom?
10:20-10:50a	Network Programmability Initiative	<b>Cisco Networking Academy</b> Sara Shreve, Echo Rantanen	Instructors are challenged with the shift to programmable infrastructure in networking. Join us to learn about the training, mentoring and development NetAcad has planned to prepare instructors for the programmable age of networking. Information on how to sign up for this FREE initiative will be provided in this session.
11:00-11:30a	Virtual Labs on SDN and P4 Programmable Switches	<b>University of South Carolina</b> Jorge Crichigno	This presentation provides an overview of virtual labs available in NETLAB, including labs on SDN and P4 programmable switches. P4 is the state-of-the-art technology used to program the data plane of routers and switches. It complements SDN by enabling network engineers to fully control and program both the data plane and the control plane.
12:30-1:00p	Custom Pods for Cybersecurity, Competition, and More!	<b>FHSU / Network Development Group</b> Jason Zeller	Over the past few semesters, we have consistently received the message that NETLAB+'s capability to support custom pods and labs has been a key component in enabling a wide range of IT training classes to convert from in-person to online. In fact, one of the fastest-growing "types" of lab content hosted via NETLAB+ is custom pods and lab exercises built by the NETLAB+ community, and we receive many questions about setting up custom pods.
1:10-1:40p	Virtualizing Internet of Things Labs	<b>Convergence Technology Center</b> Bill Saichek	The last two years have shown us that we need to step up our IT labs to an expanded virtual environment, but IoT has been problematic. The Internet of Things, by nature, requires students to work with physical "things." This has presented a huge challenge to virtualize. Even though students will always need to perform some "high-touch" IoT activities, a number of labs can be virtualized through the use of simulators and emulators. This presentation will demonstrate virtual labs using environments, such as TinkerCAD and Netlab.
1:50-2:20p	Teaching CyberSecurity with the Raspberry Pi	<b>WASTC</b> Kerry Bruce	In this session we will explore the Cisco IoT Fundamentals: IoT Security course and discuss where it would fit in your cybersecurity program. We will also explore additional ways to use the Raspberry Pi to teach cybersecurity fundamentals. Examples and resources will be provided that can be used right way in your courses.



# TRACK 3: BEST PRACTICES

## In Teaching ICT Day 1



9:40-10:10a	The Nuts and Bolts of a Two-Year Data Science Degree	<b>Florida State College at Jacksonville</b> Pamela Brauda, David Singletary	We want to share some strategies that helped us create the first two-year Data Science Technician degree framework in Florida. We believe our lessons learned will provide insights to technical college faculty in any state. From involving our BILT (Business & Industry Leadership Team) to getting an NSF ATE grant to teaching the classes, we will provide valuable information to help you get a new program off the ground!
10:20-10:50a	Esports Now: 2021 and Beyond!	<b>Ohlone College, Northern Illinois University</b> Deborah Lemon	A colorful overview of current esports stats, demographics, careers, myth-busting and more!
11:00-11:30a	AWS Introduction To the Cloud: New For K12	<b>Amazon Web Services</b> John Bjerke	Come learn how the AWS Academy is providing students with an introduction to cloud computing services in a new 2 semester, 120 hour course available to high schools and others. In this course, students explore cloud computing services, applications, and use cases. According to LinkedIn, cloud computing and cloud computing-related skills are the most in-demand job skills in the U.S. The content of this course is aligned to the K-12 Computer Science Framework Practices including Computational Thinking. At the completion of this course, students will be prepared to enter a cloud-related degree program with industry-recognized certification.
12:30-1:00p	Integrating Google Applied Digital Skills	<b>Texas State Technical College</b> Renee Blackshear	Teach and learn practical digital skills needed for the jobs of today and tomorrow.
1:10-1:40p	Strategies to Help Your Female Students Succeed in the Lab	<b>National Institute for Women in Trades, Technology &amp; Science</b> Donna Milgram	Donna will share the proven strategies and best practices for ensuring your female students are successful in the lab.
1:50-2:20p	Princesses with Powertools: Empowering the Next Generation of Girls to Pursue STEM	<b>Reinvented Inc.</b> TBD	Reinvented Inc. is back again this year with a panel that will help empower you to empower girls to pursue STEM fields. We will talk about our newest program, Princesses with Powertools, and how important positive, strong, female role models are in getting more young girls to pursue their passions in science and technology.

# TRACK 1: STUDENT TO PROFESSIONAL

## Workforce Development Day 2



9:40-10:10a	Make Analytics Education Breakthroughs with Alteryx Designer	<b>Alteryx</b> Kimberly Yohannan	Organizations of every type are hiring people with data analytics skills to gather insights from a tsunami of data. Alteryx, the analytics automation company, created the SparkED program to empower learners of all skill levels, across all fields of study, to develop the analytics skills they need to question, understand, and solve with data. Our no-cost program provides access to Designer education, Designer licenses, and teaching and learning resources for use in the classroom at accredited post-secondary institutions. We will provide an overview of the increasing global demand for data analytics skills, the SparkED program, and a prerecorded 5-minute demo Alteryx Designer.
10:20-10:50a	Preparing Your Students for a Cloud-First World	<b>Google Cloud</b> Carrie D'Ascoli	Overview of Google Cloud faculty benefits and how to leverage them in the classroom.
11:00-11:30a	Cybersecurity Essentials Skills to Entry Level Employment	<b>EC-Council</b> Wesley Alvarez	In this session, Wesley Alvarez, Director of Academics for EC-Council Global, will provide an overview of EC-Council's newest Massive Open Online Course (MOOC) series and the initiative to get students learning Network Defense, Ethical Hacking, and Digital Forensics concepts to prepare them for entry-level careers post-graduation. This series maps directly to NCWF work roles and pairs cyber range challenges and tracks, referencing these same work roles so students can see their competencies across work roles as they complete their challenges.
12:30-1:00p	Cybersecurity: A Future Proof Career	<b>Cisco Networking Academy</b> Swati Handa	For almost every two cybersecurity jobs in the United States today, a third job is sitting empty because of a shortage of skilled people. It's like going into baseball's World Series with only six players on the field when the other team has all nine. During this session, we will look at the trends in the market in the cybersecurity domain and how you, as an educator, can enable the next set of cybersecurity professionals.
1:10-1:40p	Workplace Skills in Tech Courses	<b>BACCC &amp; IBM</b> Ray Kaupp, Zoe Pilla	Now your students can earn IBM Badges for Essential Workplace Skills in your current classes. BACCC and IBM have partnered to develop a plug 'n play Canvas module that lets you incorporate IBM SkillsBuild learning materials into your current technology classes. Come learn how to make this come true for your students!
1:50-2:20p	Cyberpreneurship	<b>Riverside City College</b> Skip Berry, Ajene Wilcoxson	Cyberpreneurship, bridging the cyber gap for small to mid-sized businesses by creating independent contractors with cybersecurity skills and entrepreneurship skills.



# TRACK 2: CUTTING EDGE

## Emerging Technology Day 2



9:40-10:10a	Creative Coding with Swift	<b>Apple Inc. and Pasadena City College</b> Jennifer Dame and Masood Kamandy	Have you ever thought of coding as way to create your great next masterpiece? New learners can now learn Swift by making art. Join Masood Kamandy, Pasadena City College Instructor, and Jennifer Dame from Apple Inc. to learn more about creative coding with Swift.
10:20-10:50a	Cutting Edge Track - Incorporating Secure Software Development Tools and Frameworks When Teaching Programming Languages.	<b>LoneStar College - Montgomery</b> Rajiv Malkan	DevOps is a software development methodology that combines the development life cycle with IT operations. The idea is to develop faster and quicker updates using Agile and Lean approaches towards Software Development Life Cycle (SDLC). However, this process still does not solve the issue of software vulnerabilities. The goal of integrating the software security development (DevSecOps) mindset from the beginning of the SDLC process is to develop secure system design and reduce the risk of software vulnerabilities. So how do we incorporate such tools in the classroom?
11:00-11:30a	Technical Updates: Cisco Networking Academy	<b>Cisco Networking Academy</b> Echo Rantanen	Catch up on the latest products and updates from Cisco Networking Academy!
12:30-1:00p	An Incident Responder's Wish List	<b>Forensic Recovery, LLC</b> Aaron Weiss	Prepares attendees for being an asset during a security incident, regardless of their current role. They can take these lessons back to their existing team or a prospective employer, demonstrating their understanding of a successful response. Teaches the proper mindset and tips to reduce the chance of losing valuable evidence during a potential compromise.
1:10-1:40p	An Incident Responder's Wish List	<b>Holy Cross College at Notre Dame</b> Matthew Cloud	Over the past year, there have been a multitude of new AI programs, modules and tools you can use. We will go over AWS, IBM, Intel, Microsoft, Oracle curricula and tools available and where they might help in any curricula.
1:50-2:20p	Smart Contract Security and Glow	<b>CCSF</b> Sam Bowne	Smart contracts run investment platforms on blockchains and handle millions of dollars daily. However, they are written in clumsy languages like Solidity, which require thousands of lines of code and are difficult to secure. As a result, there have been many security disasters causing large amounts of cryptocurrency to be lost or stolen. Several examples of real-world attacks will be demonstrated, explained, and compared with Glow contracts that avoid these problems. All the tools and projects shown are freely available for anyone to use.

# TRACK 3: BEST PRACTICES

## In Teaching ICT Day 2



9:40-10:10a	Building the Cybersecurity Workforce - One Teacher at a Time	<b>CYBER.ORG</b> Kevin Nolten	K-12 education plays a pivotal role in closing the cybersecurity workforce gap. Learn from CYBER.ORG, a thought leader in K-12 Cybersecurity Education, on strategies for engaging school districts, schools, and individual teachers who are ultimately responsible for educating the next generation's cyber-literate workforce. By engaging students at an early age, we begin shaping their interests and degree/career choices.
10:20-10:50a	The NCL: From Curriculum to Careers	<b>Cyber Skyline</b> Franz Payer, Dan Manson	It can be hard for students to find their first cyber job after graduation. Without past job experience, many can't gain the attention of recruiters. Learn how the National Cyber League gives students an environment to practice performing real-world cyber tasks so they'll have a leg up when on the job hunt.
11:00-11:30a	Hacker Gadgets... Make Cyber More Fun and Less Scary "Take a Byte out of Cyber"!	<b>Cal Poly SLO &amp; Coast USD</b> Henry Danielson	Hacker Gadgets/Badgelife...Make Cyber More Fun and Less Scary "Take a Byte out of Cyber"! Take a walk down the raceway of cyber/social engineering with Henry and discover some cool tools and hacker gadgets. Experience social engineering tactics in the wild! The speedway is going to be fast, so buckle up!
12:30-1:00p	Best Practices in Developing and Implementing an Effective Middle School to College Cybersecurity Pathway	<b>Cypress College</b> Behzad Izadi, Rassoul Alizadeh, Henry Hua, Barrett Busch, Jamie Keledjianand Stephanie Teer	PACE (Pathway to Advancement in Cybersecurity Education) is a guided cybersecurity pathway that introduces dual enrollment college courses as early as 9th grade with multiple educational and employment exit points. PACE was funded for 2 years by the Strong Workforce Project and further funded by the NSF-ATE grant for 3 years. PACE is an "adaptable" model to accommodate HS students based on their specific potentials/needs. It involves establishing a strong dual-enrollment team, collaboration with stakeholders, formal agreements with the HS district and a comprehensive pilot study at our sister High school (Magnolia).
1:10-1:40p	Digital Forensics & Career Paths for CyberTech Girls at Coastline College	<b>Coastline College</b> Tobi West, Anna Carlin	Coastline College's Cybersecurity department is focuses on the mission-critical issue of building a skilled and diverse workforce of individuals prepared for cybersecurity and law enforcement careers. In collaboration with government agencies, Fullerton College, Irvine Valley College, and local high school teachers, Coastline hosted a summer camp for high school girls of Orange County, CA to learn about digital forensics and law enforcement careers.
1:50-2:20p	The Bay Cyber League: A NSF ATE Project	<b>BACCC/DVC</b> Richard Grotegut, Denise Moss, Irvin Lemus, Bijan Houshiar, Brianne Kodakari	Increasing diversity in the cybersecurity talent pool through cybercamps and competitions.