



# CYBERPATRIOT

THE AIR FORCE ASSOCIATION'S  
NATIONAL YOUTH CYBER EDUCATION PROGRAM

## EXTRA TRAINING – Day 4

Cybersecurity Training Opportunities



# Learning Objectives

- Local Training Opportunities
  - Local Tech and Security Conferences
  - Local Association Chapters
- Online Cyber Academies
  - Cisco
  - SANS
  - Microsoft
- Online Training
  - Cybersecurity Focused
  - AI Training
  - Cloud Training
- Capture the Flag
  - Cyber Launch
  - Online CTF Challenges
  - Cyber Competitions
- Other Options
  - YouTube “University”
  - Book Bundles



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## Day 4 - SECTION 1

### Local Training Opportunities



# Tech Coast Conference – Jacksonville IT Council



About ▾ Agenda ▾ Speakers ▾ Exhibitors & Sponsors ▾ Conference App

REGISTER

- Sponsored by the JAX Chamber of Commerce – IT Council
  - 12<sup>th</sup> Annual conference
  - Forum to present, discuss and share advances, opportunities and solutions.
- Focused on various technology, not just cybersecurity
- **August 28, 2025**
  - University of North Florida
  - Adam Herbert Center
  - 0800 - 1630



<https://techcoastconference.com/>

# BSides JAX Security Conference



About Sponsors Speakers



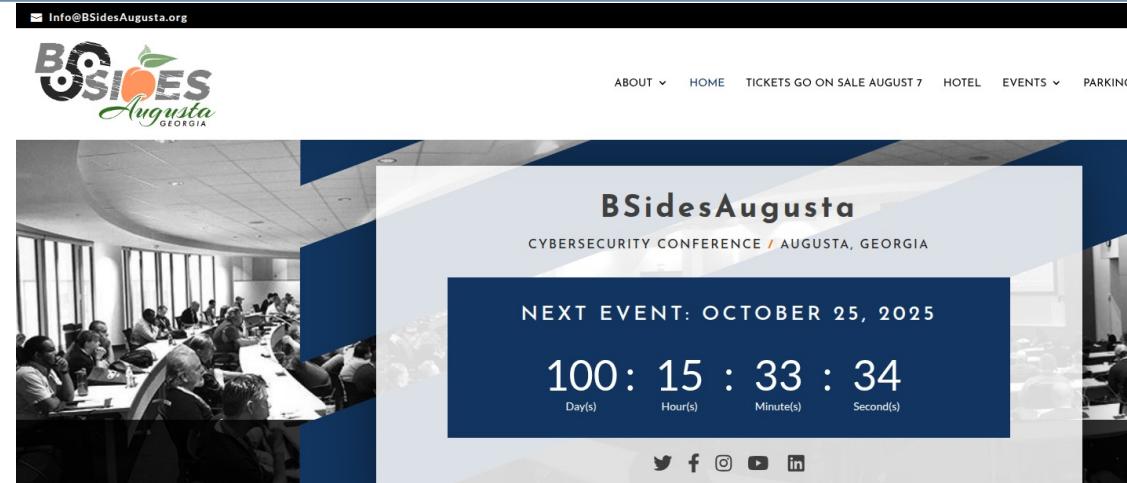
- November 15, 2025
  - University of North Florida
  - Adam Herbert University Center
  - 0800 - 1600
- BSides are local grass-roots cybersecurity conferences established throughout the country. Community driven content.
  - It's primary mission is to facilitate education and collaboration among security practitioners and anyone interested in learning more about information security and privacy.
- Additional opportunities:
  - Capture the Flag
  - Lock-picking village
  - HAM Radio certification
  - Soldering village



<https://www.bsidesjax.org/>

# BSides Augusta Security Conference

- October 25, 2025
  - Georgia Cyber Innovation & Training Center
  - 0800 - 1645
- BSides are local grass-roots cybersecurity conferences established throughout the country. Community driven content.
  - The goal is to expand the spectrum of conversation beyond the traditional confines of space and time. It creates opportunities for individuals to both present and participate in an intimate atmosphere that encourages collaboration.
- Additional opportunities:
  - Capture the Flag
  - Lock-picking village
  - Soldering village



<https://bsidesaugusta.org/>

# Local Association Chapters

- Local chapters for certification organizations
  - Monthly or quarterly meetings
  - Often have discounts for students
  - Opportunities for scholarships or certification vouchers
- Local meetup groups
  - Practitioners of various specialties have local meetings with like-minded professionals
  - Opportunity to find out about local events, training opportunities and scholarships





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## Day 4 - SECTION 2

### Online Cyber Academies



# Cisco Net Academy



- Free online learning portal from Cisco
- Cisco is a premiere network hardware/software manufacturer
  - Offer basic and advanced training topics
  - Offer certifications in networking and security

The screenshot shows the Cisco Networking Academy homepage. At the top, there is a navigation bar with links for "Explore", "Search for courses, articles and resources", "Learner", "Teach", "Partner", "EN", a help icon, a notifications icon with a red dot, and a "Login" button. Below the navigation bar, the page title "Subject Areas" is centered. There are eight subject area boxes arranged in two rows of four. The subjects are: Cybersecurity (padlock icon), Networking (network icon), AI & Data Science (brain icon), Programming (code icon); Information Technology (monitor icon), Digital Literacy (document icon), Professional Skills (person icon), and Sustainability (globe icon). At the bottom center, there is a box for "Cisco Packet Tracer" with its icon.

<https://www.netacad.com/>

# Cisco Net Academy

- Cisco Packet Tracer is part of Cyber Patriot
  - Downloadable labs are part of the competition
  - Run locally
  - Submitted independently once completed
- Must have a NET Academy login
  - Individual accounts for learning
  - Team accounts for competing
  - Free software download of Packet Tracer for local installation

## Cisco Packet Tracer

Practice networking, IoT, and cybersecurity skills in a virtual lab with the gold-standard network simulation tool-no hardware needed!

Courses | [View all](#)



 Course | Self-paced, Instructor-led

### Getting Started with Cisco Packet Tracer

Your on-ramp to Cisco Packet Tracer. Get familiar with the simulation environment and download the latest version.

 2 Hours  Free



 Course | Self-paced, Instructor-led

### Exploring Networking with Cisco Packet Tracer

Practice using Cisco Packet Tracer to set up, manage, and monitor a branch office network.

 3 Hours  Free



 Course | Self-paced, Instructor-led

### Exploring Internet of Things with Cisco Packet Tracer

Learn to add and configure IoT devices in Cisco Packet Tracer to set up a smart home network.

 3 Hours  Free

# Cisco Net Academy

- Other free and paid training is available through same portal
  - Typically self-paced
  - Some are instructor led
- Primary programs to look at
  - Cybersecurity
  - Programming
  - Networking

## Start Learning

The image shows four course cards from the Cisco Net Academy portal. Each card has a green 'BEGINNER' or 'INTERMEDIATE' badge at the top left. The first card, 'Introduction to Cybersecurity', features a woman in a hijab looking at her phone. The second card, 'Junior Cybersecurity Analyst', features a digital shield icon. The third card, 'Ethical Hacker', features a woman in a hoodie in a server room. The fourth card, 'CyberOps Associate', features a silhouette of a person in front of a screen with many data points. Each card includes a brief description, duration (6, 120, 70, or 70 hours), and a 'Free' badge.

Course Title	Level	Description	Duration	Status
Introduction to Cybersecurity	BEGINNER	Explore the exciting field of cybersecurity and why cybersecurity is a future-proof career.	6 Hours	Free
Junior Cybersecurity Analyst	BEGINNER	Cyber attacks increase with every digital connection made around the world. Learn how to protect and defend an organization.	120 Hours	Free
Ethical Hacker	INTERMEDIATE	Learn the art of offensive security to uncover cyber threats and vulnerabilities before the cybercriminals do.	70 Hours	Free
CyberOps Associate	INTERMEDIATE	Learn how to monitor, detect and respond to cyber threats and prepare for the Cisco Certified CyberOps Associate certification.	70 Hours	Free

## Start Learning

The image shows four course cards from the Cisco Net Academy portal. Each card has a green 'BEGINNER' badge at the top left. The first card, 'C++ Essentials 1', shows two people working on a laptop. The second card, 'C Essentials 1', shows two people working on a computer. The third card, 'Python Essentials 1', features a glowing Python logo. The fourth card, 'JavaScript Essentials 1', shows a person's hands typing on a laptop. Each card includes a brief description, duration (42, 40, 30, or 40 hours), and a 'Free' badge.

Course Title	Level	Description	Duration	Status
C++ Essentials 1	BEGINNER	Build your C++ programming skills and prepare for CPE - C++ Certified Entry-Level Programmer certification.	42 Hours	Free
C Essentials 1	BEGINNER	Build up your C programming skills and prepare for CLE - C Certified Entry-Level Programmer certification.	40 Hours	Free
Python Essentials 1	BEGINNER	Learn fundamental concepts of computer programming and start building coding skills with the Python programming...	30 Hours	Free
JavaScript Essentials 1	BEGINNER	Design, develop, and improve JavaScript programs. Boost your programming skills to start your career in technology.	40 Hours	Free

<https://www.netacad.com/>

- Training and certification non-profit organization
  - Known for expert level training
  - GIAC certifications
- Virtual Summits are generally **free**
  - Limited access to training materials and some recordings
  - Live virtual attendance

The screenshot shows the homepage of the SANS DFIR Summit & Training 2025 event. At the top, there's a navigation bar with links for Home, Cyber Security Events, DFIR Summit & Training 2025, Training, Learning Paths, Community Resources, and For Organizations. Below the navigation is a search bar and a button to 'Talk with an expert'. The main banner features a city skyline at night with a large 'DFIR' logo overlaid. The text on the banner reads 'DFIR Summit & Training 2025', 'Salt Lake Marriott Downtown at City Creek', 'Salt Lake City, UT, US and Virtual - MT', and the dates 'Thu, Jul 24 - Thu, Jul 31, 2025'. At the bottom of the banner are three buttons: 'Summit Agenda', 'Register for Course', and 'Register For Summit'.

<https://www.sans.org/>

<https://www.sans.org/cyber-security-training-events/digital-forensics-summit-2025/>

- Need to have an account to register for attendance

## Upcoming Cyber Security Summits

Cyber Security Summit & Training events provide an immersive training experience that arms attendees with deep-knowledge and actionable information and has a lasting impact on their careers and their organizations' security programs.

Event	Location	Dates
Digital Forensics & Incident Response (DFIR) Summit & Training <a href="#">Register Now</a>	Salt Lake City, UT & Virtual	Summit: Jul 24-25 Training: Jul 26-31
SANS Security Awareness Summit & Training <a href="#">Register Now</a>	Chicago, IL & Virtual	Summit: Aug 14-15 Training: Aug 11-13
SANS DFIR Europe Prague <a href="#">Register Now</a>	Prague, CZ and Virtual - CET	Summit: Sept 28 Training: Sept 29 - Oct 4
CloudSecNext Summit & Training 2025 <a href="#">Register Now</a>	Denver, CO & Virtual	Summit: Oct 2-3 Training: Oct 4-9
SANS Cyber Leaders Summit <a href="#">Register Now</a>	London, GB	Summit: Oct 22
NEW!   Hack & Defend Summit & Training <a href="#">Register Now</a>	Austin, TX & Virtual	Summit: Oct 28-29 Training: Oct 30 - Nov 4

# Microsoft Virtual Training Events

- One or two-day virtual training series on various topics related to Microsoft cloud services
- Must register for event
  - Training is 4H to 8H long
  - Some events have an available 50% discount voucher for the certification exam

All events

Filters applied: English X 08:00 AM-05:00 PM X

1 to 16 of 67 results [Share these 16 results](#)

[Load next 16 results](#) [Grid](#) [List](#)

<a href="#">Microsoft Azure Virtual Training Day: Migrate Linux and PostgreSQL to Azure</a> 07/18/2025   12:00 - 16:00 (EDT) Digital English (United... Training  <a href="#">Registration and details</a>	<a href="#">Microsoft Azure Virtual Training Day: Data Fundamentals</a> 07/21/2025   12:00 (EDT) - 07/22/2025   14:30 (EDT) Digital English (United... Training  <a href="#">Registration and details</a>	<a href="#">Microsoft 365 Virtual Training Day: Prepare Your Organization for Microsoft 365 Copilot</a> 07/21/2025   12:00 - 14:30 (EDT) Digital English (United... Training  <a href="#">Registration and details</a>	<a href="#">Microsoft Azure Virtual Training Day: Migrate and Secure Windows Server and SQL Server</a> 07/22/2025   12:00 (EDT) - 07/23/2025   14:00 (EDT) Digital English (United... Training  <a href="#">Registration and details</a>
<a href="#">Microsoft Security Virtual Training Day: Security, Compliance, and Identity Fundamentals</a> 07/23/2025   12:00 (EDT) - 07/24/2025   15:00 (EDT) Digital English (United... Training  <a href="#">Registration and details</a>	<a href="#">Microsoft Dynamics 365 Virtual Training Day: Fundamentals (ERP)</a> 07/23/2025   12:00 (EDT) - 07/24/2025   14:15 (EDT) Digital English (United... Training  <a href="#">Registration and details</a>	<a href="#">Microsoft Azure Virtual Training Day: Fundamentals</a> 07/24/2025   12:00 (EDT) - 07/25/2025   14:30 (EDT) Digital English (United... Training  <a href="#">Registration and details</a>	<a href="#">Microsoft 365 Virtual Training Day: Fundamentals</a> 07/25/2025   12:00 - 16:15 (EDT) Digital English (United... Training  <a href="#">Registration and details</a>

# Microsoft Virtual Training Events

- Basic and advanced topics
- Free events
  - Register with MS Learn account
  - Ties voucher to your account

Part 1	Part 2
Introduction	Introduction
Cloud fundamentals	Azure storage
Break: 10 minutes	Break: 10 minutes
Azure architecture	Azure identity, access, and security
Azure compute services	Azure cost management
Break: 10 minutes	Break: 10 minutes
Azure networking	Azure governance and compliance Azure resource management Azure monitoring services
Closing question and answer	Closing question and answer

Digital

## Microsoft Azure Virtual Training Day: Fundamentals

Where: Online

### When

July 24, 2025

9:00 AM – 11:15 AM | (GMT-07:00) Pacific Time (US & Canada)  
10:00 AM – 12:15 PM | (GMT-06:00) Mountain Time (US & Canada)  
11:00 AM – 1:15 PM | (GMT-05:00) Central Time (US & Canada)  
12:00 PM – 2:15 PM | (GMT-04:00) Eastern Time (US & Canada)

July 25, 2025

9:00 AM – 11:30 AM | (GMT-07:00) Pacific Time (US & Canada)  
10:00 AM – 12:30 PM | (GMT-06:00) Mountain Time (US & Canada)  
11:00 AM – 1:30 PM | (GMT-05:00) Central Time (US & Canada)  
12:00 PM – 2:30 PM | (GMT-04:00) Eastern Time (US & Canada)

**Delivery language(s):** English

**Closed captioning language(s):** English

Adapt your skills and master the tools you'll need to thrive in an AI-powered world at a free Microsoft Azure Virtual Training Day from Microsoft Learn. Join us at Azure Fundamentals to develop an understanding of foundational cloud concepts and explore various cloud models, service types, and responsibility sharing. Learn how to manage spending, optimize costs, enhance security, and maintain compliance across your Azure cloud ecosystem, as well as on-premises, hybrid, and multicloud environments.

# Microsoft Virtual Conferences

- Two major MS conferences each year
  - On-site and online
- Spring – Microsoft Build
  - Focusing on development practices and applications
  - Online: May 19–22, 2025
  - <https://build.microsoft.com/en-US/home>
  - Recap training online – registration required
- Fall – Microsoft Ignite
  - Focusing on infrastructure and cloud
  - Online: November 18–20, 2025
  - <https://ignite.microsoft.com/en-US/home>
- Skills Challenges
  - Cloud Skills
  - AI Skills
  - Includes potential for free test vouchers



# AWS Conferences

- Two major MS conferences each year
  - On-site **only**
- Spring – AWS re:Inforce
  - Focusing on infrastructure and cloud
  - In person Only: June 16–18, 2025
- Fall – AWS re:invent
  - Focusing on development
  - In person only: December 1–5, 2025
  - TBD
- Some online post conference on YouTube:
  - NotebookLM:  
[https://notebooklm.google.com/notebook/ed0a06b7-7aa9-4451-8b10-6a3678e8f9ad?original\\_referer=https%3A%2F%2Fwww.google.com%23&original\\_referer=https%3A%2F%2Fwww.youtube.com%23&pli=1](https://notebooklm.google.com/notebook/ed0a06b7-7aa9-4451-8b10-6a3678e8f9ad?original_referer=https%3A%2F%2Fwww.google.com%23&original_referer=https%3A%2F%2Fwww.youtube.com%23&pli=1)



# AWS Virtual Presentations

AWS re:Inforce 2025 Public Notebook

Settings 

Sources Chat Studio

Select all sources

AWS re:Inforce 2025 - A deep dive into Amazon VPC

AWS re:Inforce 2025 - A practical guide to generative ...

AWS re:Inforce 2025 - AI agents talk the talk. Can the...

AWS re:Inforce 2025 - AI vs. AI: Securing the human la...

AWS re:Inforce 2025 - AWS Global Services: Turning s...

AWS re:Inforce 2025 - AWS Heroes launch insights (C...

AWS re:Inforce 2025 - AWS Managed Microsoft AD fo...

AWS re:Inforce 2025 - AWS Network Firewall: Latest f...

AWS re:Inforce 2025 - AWS Security Hub: Detect and ...

AWS re:Inforce 2025 - AWS re:Inforce Executive Wrap...

AWS re:Inforce 2025 - AWS re:Inforce Wrap-Up [Japa...

AWS re:Inforce 2025 - Accelerating incident response...

AWS re:Inforce 2025 - Agentic AI: Accelerating threat ...

AWS re:Inforce 2025 - Automation in action: Strategie...

 AWS re:Inforce 2025

171 sources

These AWS re:Inforce 2025 sessions collectively address various facets of **cloud security and resilience**, with a significant emphasis on **Generative AI**. Several presentations explore **securing AI applications and agents**, detailing **guardrails**, **threat detection**, and **responsible AI principles**. Other talks cover **network security** through firewalls and access controls, **identity and access management (IAM)** best practices including least privilege and Zero Trust, and **data protection** through encryption and perimeters. The sources also highlight strategies for **building a security-first culture**, automating **compliance and governance**, and leveraging **threat intelligence** for proactive defense, often incorporating **AI-powered tools** like Amazon Q Developer to enhance these processes.

Start typing... 171 sources 

How are generative AI technologies being integrated across various AWS security services and features? 

Audio Overview 

Click to load the conversation. 

Interactive mode 

Notes

 AWS re:Inforce 2025 Security Insights  Click to open the Mind Map



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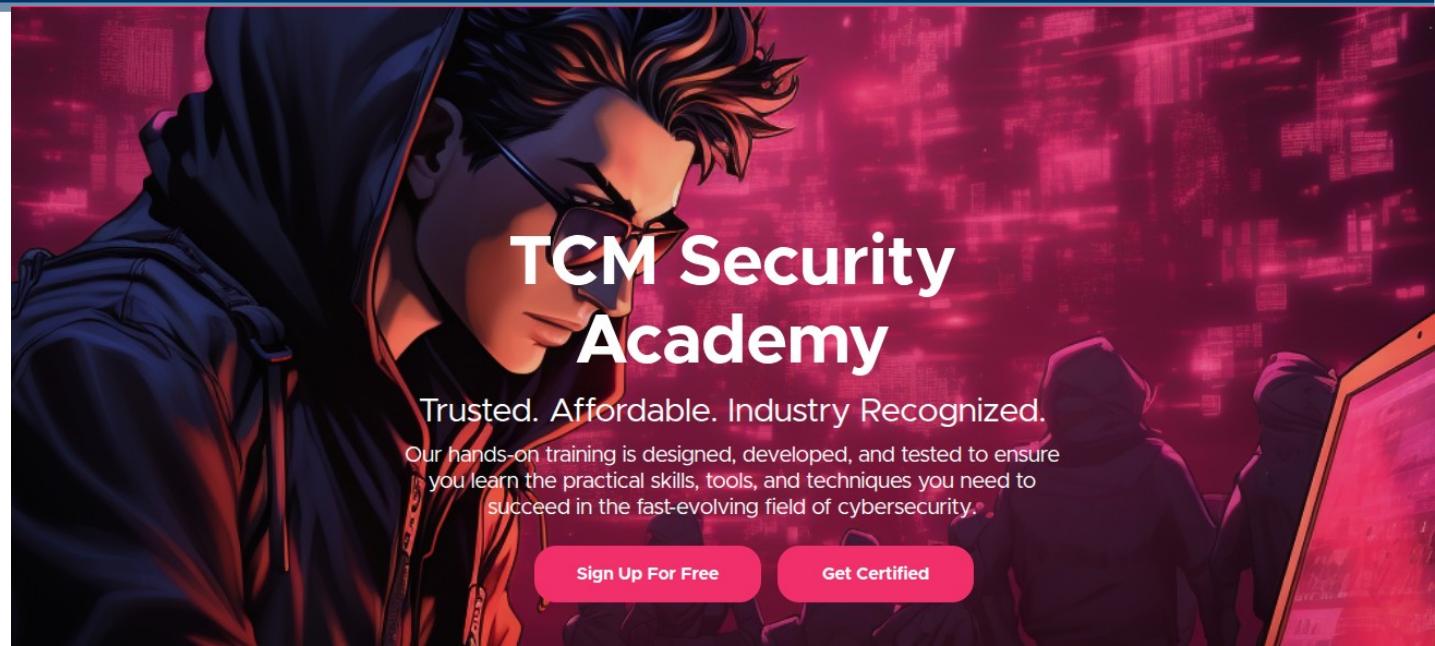
## Day 4 - SECTION 3

### Online Training Opportunities



# TCM Academy

- Online Cybersecurity Training
- Focused on training for Red Team and Blue Team Operations
  - Free and paid courses
  - Paid Subscriptions as well
  - Join Discord for additional services and programs



# TCM Academy

## Cybersecurity Courses

Unlock access to all of our hands-on training for just \$1 a day!

All Foundational Red Team Blue Team

### Foundational Courses



#### Assembly 101

Learn the language of computers and how to write your own Assembly code.

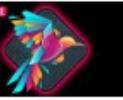
Andrew Belits



#### LF 101 for Hackers

Learn the fundamentals of C# and .NET to enhance your hacking skills.

Alex Tashinsky



#### INCURSE

Learn the basics of Linux and jumpstart your IT and cybersecurity career.

Heath Adams



#### LINUX 101

Everything you need to know to start using Linux.

Brent Everidge



#### MACROD HELP DESK

Prepare for a career in IT or cybersecurity by learning everything you need to know to work the help desk.

Andrew Belits



#### Programming Fundamentals

Learn the building blocks of programming with Python.

Heath Adams



#### Programming with AI - Mini Course

Utilize Artificial Intelligence and Large Language Models to become a better programmer.

Heath Adams



#### PYTHON 101 FOR HACKERS

Learn Python with a focus on concepts and modules important for hacking.

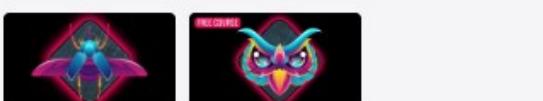
Riley Kidd



#### PYTHON 201 FOR HACKERS

Move beyond the basics and learn how to actively use Python as a Windows hacking tool.

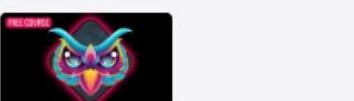
Riley Kidd



#### HIRE 101

Learn the foundational concepts of the Rust programming language.

Heath Adams



#### SOFT SKILLS FOR THE JOB MARKET

Equip yourself with essential soft skills, communication techniques, and job application strategies required to succeed in today's competitive job market.

Heath Adams



## Linux 100: Fundamentals

Learn the basics of Linux and jumpstart your IT and cybersecurity career.



## Programming 100: Fundamentals

Learn the building blocks of programming with Python.



## Programming 100: Fundamentals

Learn the building blocks of programming with Python.

- Free Online Cybersecurity Training
- Recommendations:
  - LINUX 100 Fundamentals
  - Programming 100: Fundamentals

# BHIS Academy | AntiSyphon Training



- Cybersecurity Company
- Host Security Conferences
  - Wild West Hackin' Fest
- Tools and Blogs
  - Online weekly podcasts
  - Regular Lunch-Learn
- AntiSyphon Training
  - Podcast and Summits
  - Paid, PWYC, Free



free tools to use

**DNS Triage**

DNS Triage checks:

- DNS records
- Selected subdomains – chosen for high value and frequency
- Third-party services

Get it here:  
<https://github.com/Wh1t3Rh1n0/dns-triage>

**Ice Scraper**

Ice Scraper is a tool to perform bulk collection of employee names (and sometimes titles, location, etc.) from open source intelligence sources on the internet.

Get it here:  
<https://github.com/Wh1t3Rh1n0/IceScraper>

**Skyhook**

Skyhook is a REST-driven utility used to smuggle files into and out of networks defended by IDS implementations.

Get it here:  
<https://github.com/blackhillsinfosec/skyhook>

**SlackEnum**

SlackEnum is a user enumeration tool for Slack.

Get it here:  
<https://github.com/Wh1t3Rh1n0/slack-enum>

**SMB-deploy**

Batch files to easily test and log write access to SMB shared folders.

Get it here:  
<https://github.com/Wh1t3Rh1n0/smb-deploy>

**MSOLSpray**

A password spraying tool for Microsoft Online accounts (Azure/Office 365). The script logs if a user cred is valid, if MFA is enabled on the account, if a tenant doesn't exist, if a user doesn't exist, if the account is locked, or if the account is disabled.

Get it here:  
<https://github.com/Wh1t3Rh1n0/MSOLSpray>

**SpiderTrap**

Spidertrap is a Python program which

# AntiSyphon Training

- Cybersecurity Training Arm of BHIS
- AntiSyphon Training
  - Podcast and Summits
  - Paid, Pay What You Can (PWYC), Free
  - Online Summits
  - Blue Team Summit: Online **8/27/25**
  - Red Team Summit: Online Recap



The screenshot shows the Antisyphon Training website's course listing page. At the top, it says "UPCOMING LIVE COURSES ///". Below this are four course cards, each featuring the Antisyphon logo and a "Pay Forward What You Can" button. The courses are:

- Bill McCauley** - Workshop: Foundational Application Security Training with Bill McCauley (Live, Jul 31st)
- Troy Wojewoda** - Workshop: Foundations of Network Forensics and Analysis with Troy Wojewoda (Live, Jul 25th)
- Tim Pappa** - Workshop: How to Befriend and Bedazzle Online Threat Actors with Tim Pappa (Live, Aug 15th)
- Hayden Covington** - Workshop: SOC Detection Engineering Crash Course with Hayden Covington (Live, Jul 18th)

At the bottom of the page are two buttons: "LIVE COURSE CALENDAR" and "LIVE COURSE CATALOG".

<https://www.antisyphontraining.com/>

# Backdoors and Breaches



- Cybersecurity Cards Game
- Defensive Posture Play
  - Emulates a Tabletop Exercise
  - Provides various attack and defensive scenarios
  - Online version as well:  
<http://play.backdoorsandbreaches.com/>

**BRING YOUR OWN (EXPLOITED) DEVICE**

Your organization allows users to bring in their own devices. Or, another way to put it, they bring in their own exploited devices. The attackers use these devices to compromise your organization.

**DETECTION**

Firewall Log Review  
NetFlow, Zeek/Bro, RITA Analysis

**TOOLS**

The completely asinine belief that somehow allowing people to bring their own devices in is a worthy cost savings.

<https://www.blackhillsinfosec.com/pentesting-dropbox-on-steroids>

**APPLICATION SHIMMING**

The attackers use the Application Compatibility Toolkit to trick applications into not seeing the ports, directories, files, and services the attackers want to hide.

**DETECTION**

Endpoint Security Protection Analysis  
Endpoint Analysis

**TOOLS**

Windows Assessment and Deployment Kit (ADK)

<https://docs.microsoft.com/en-us/windows-hardware/get-started/adk-install>  
<https://attack.mitre.org/techniques/T1138>

**GMAIL, TUMBLR, SALESFORCE, TWITTER AS C2**

The attackers route traffic through third-party services. Many services, like Gmail, are ignored completely by many security tools.

**DETECTION**

NetFlow, Zeek/Bro, RITA Analysis

**TOOLS**

Goat  
Sneaky Creeper

<https://github.com/b73b03d3r/gcat>  
<https://github.com/DakotaNelson/sneaky-creeper>

**LOCAL PRIVILEGE ESCALATION**

The attackers use a vulnerability in local software to gain administrative access.

**DETECTION**

Endpoint Analysis  
Endpoint Security Protection Analysis

**TOOLS**

PowerSploit's PowerUp  
Meterpreter Post-Exploitation Scripts

<https://www.blackhillsinfosec.com/powershell-without-powershell-how-to-bypass-application-whitelisting-environment-restrictions-av>

**ENDPOINT SECURITY PROTECTION ANALYSIS**

We know, you have AV. Great! Do you actually get alerts and logs? Do you immediately review them? Or, do you simply turn it on and walk away while the network explodes like you're in a bad action movie?

**TOOLS**

Check with your vendor; they miss you and always want to chat.

**LEGAL TAKES YOUR ONLY SKILLED HANDLER INTO A MEETING TO EXPLAIN THE INCIDENT**

Who brought a lawyer to the party? There's always one person who pretty much runs the whole IR process. That one essential person. Well, the legal team took that person away for "Very Important Reasons."

**NOTES**

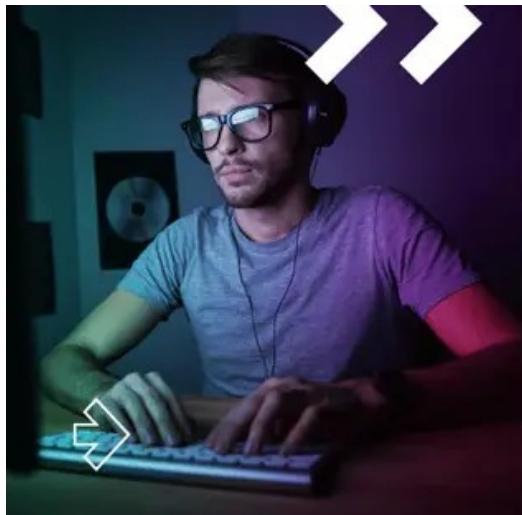
They may never come back... all of the quiet people who were just passively listening and hoping to not get called on now need to step up. Now is your time. Shine!



- Free Online Courses
- Academy is part of AttackIQ company
  - Consulting Services
  - Software development
  - Adversarial Attack Simulations
  - Focus on Continuous Threat Evaluation



<https://www.academy.attackiq.com/>



➔ Learning Path

**MITRE  
ATT&CK**

➔ Learning Path

**Purple  
Teaming**



# Simply Cyber Academy



- GRC Focused Training
  - Free and paid training
  - Free ebooks
- YouTube Podcasts
  - Daily Threat Briefing
  - Weekly Topic Discussions

<https://academy.simplycyber.io/>

## LATEST INITIATIVES



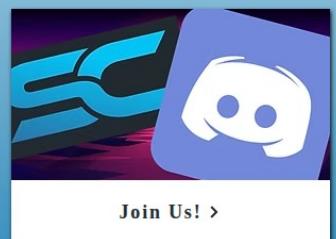
Catch Us Live! >



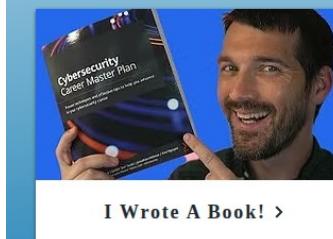
Learn Now! >



Cybersecurity Home Labs



Join Us! >

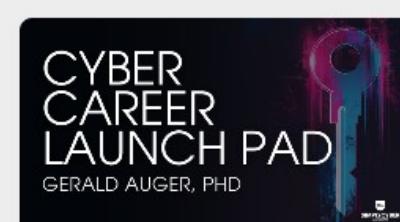


I Wrote A Book! >



Cybersecurity Free Resources

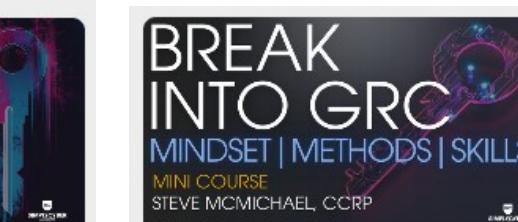
For Everyone! >



Cybersecurity Career Launchpad: A Complete...

Cut through the cybersecurity learning clutter. This course delivers curated...

Gerald Auger, Ph.D



How to Break into GRC: Mindset, Methods, Skills

Break into cybersecurity through GRC. Governance, Risk & Compliance is the...

Steve McMichael

FREE

- Free Cybersecurity Detective Game
  - Non-profit – foundation funded
- Competitions and Leaderboards
  - Individual or teams
  - Badges available for LinkedIn



A screenshot of a cybersecurity detective game interface. On the left, there's a sidebar with categories like CastleSand, AuthenticationEvents, Email, Employees, FileCreationEvents, InboundNetworkEvents, OutboundNetworkEvents, and PassiveDns. The main area shows a KQL query window with the following code:

```

1 // Oh no, the company was ransommed!
2 // Find all instances of the reported ransom notes
3 // On company owned computers
4
5 FileCreationEvents
| where filename == "PAY_UP_OR_SWIM_WITH_THE_FISHES.txt"
6
7 // things the bad guys did during their intrusion
8
9
10
11
12
13
14
15
16
17
18
  
```

Below the query window is a table titled "Table 1" showing results:

timestamp	hostname	username
2023-06-09 19:57:30.0000	6G56-DESKTOP	bereddout
2023-06-09 19:58:27.0000	RT2P-DESKTOP	stchiles
2023-06-09 20:00:11.0000	9VDE-MACHINE	tezapien
2023-06-09 20:10:47.0000	CHXL-DESKTOP	macasas
2023-06-09 20:12:38.0000	IAGJ-DESKTOP	jreddy
2023-06-09 20:14:50.0000	1ZWF-MACHINE	maladue
2023-06-09 20:16:08.0000	JSZE-LAPTOP	anschumpert
2023-06-09 20:21:04.0000	M9SN-LAPTOP	shsmith
2023-06-09 20:23:10.0000	OZDG-DESKTOP	anbarcellos
2023-06-09 20:23:11.0000	QV80-LAPTOP	jagooding

To the right of the table is a modal window titled "Question 4 (50 pts)". It contains the following text:

The ransom note filename was called "PAY\_UP\_OR\_SWIM\_WITH\_THE\_FISHES.txt." How many notes appeared in Castle&Sand's environment?

Answer:

Solved by 210 players | Need help? Ask on discord @ kc7cybercommunity

Submit

<https://kc7cyber.com/>

 FREE Virtual Cybersecurity Workshop

 Learn to Hunt Real Cyber Threats in Just 4 Hours!

 Saturday, July 19, 2025

 11:00 AM – 3:00 PM ET

 100% Virtual on Zoom

Join the KC7 team for an action-packed, hands-on workshop where you'll:

-  Hunt down a real APT (Advanced Persistent Threat) group
-  Master KQL queries and Azure Data Explorer
-  Compete in live CTF challenges with prizes
-  Network with cybersecurity professionals
-  Earn a certificate of completion

 Perfect for Beginners • No Experience Required 

 Limited Spots Available - Register Now!

Register Now!



# CYBERPATRIOT

THE AIR FORCE ASSOCIATION'S  
NATIONAL YOUTH CYBER EDUCATION PROGRAM

## Day 4 - SECTION 4

### Capture the Flag



# Cyber Launch



- FL Cyber training programs
  - Sponsored through University of South Florida (USF)
  - Free event for High Schools
  - Up to 12 attendees per school
- Annual Training Event
  - April 2025
  - Orlando, FL
  - Registration begins in September prior



<https://cyberflorida.org/cyberlaunch/>

POWERED BY **CYBER FLORIDA**



- Online Training Portal
  - Subscription based
- Monthly Online CTF Challenges
  - Typically 5-10 challenges per month
  - Free events
  - Single day – 4H
  - Prizes for winners
  - Compete individually or in teams
  - Monthly recap of previous challenge

MetaCTF Problems Scoreboard Rules Stats Logout Dashboard

Cryptography Forensics Other Reconnaissance Reverse Engineering Web Exploitation

Bonus Help UI Settings CyberChef

Flag Format (solved by 0 teams) 50

All flags should be obvious and a `string_separated_with_underscores`.

If it is not in that format, we specify what the flag format should be instead. If you solve this challenge, make sure to tell your teammates about the flag format!

? Submit!

Please rate this problem: ★★★★★

Alright Cupid (solved by 0 teams) 100

Your friend is getting ready to launch the next big social media platform. They don't know much about coding and copied most of it from Stack Overflow. The internet is never wrong, right? Take a look at their login page, and see if it's ready to be pushed to production.

? Submit!

Please rate this problem: ★★★★★

Welcome to the Crypto-verse (solved by 0 teams) 125

Welcome to the Crypto Crew! Our team helps consult in a variety of areas around the security department, helping to make sure our company is using proper encryption & data storage as well as sometimes in forensic investigations.

One key concept is the idea of a hash. This is a one-way function that takes a plaintext string (like a user password) and creates a unique string. Although we could brute force it ourselves, often times the plaintext match already exists on the internet. This hash in particular is encoded with the MD5 algorithm. Can you find the original text?

825b9af1c9ac6aa39d585d12de024e6d

? Submit!

Please rate this problem: ★★★★★

Can Powershell please join us on the stage? (solved by 0 teams) 150

While going through some of our logs, we found this powershell command had been run. It looks kind of funky ... do you think there's anything malicious in there? Can you find out?

C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe -nop -sta -w 1 -enc

30



- Online learning program through Carnegie Mellon University - **Free**
- Focusing on evolution and progressively harder tasks
  - PicoGym – practice area
  - Reference links to other CTF training resources

Carnegie  
Mellon  
University

## picoCTF 2025

This is a 10-day long timed CTF competition. Challenges increase in difficulty as players progress. All are welcome to join, but this CTF is recommended for players with some programming knowledge. Players with no previous programming or CTF experience should start with our noncompetitive [picoGym challenges](#).

### Timeline

[Sign up](#) for a picoCTF.org account at anytime.

- Feb 1 to Mar 14, 2025 - Registration open
- March 7, 2025 12:00 PM EST - CTF begins
- March 17, 2025 3:00 PM EDT - CTF ends

picoCTF would like to thank our sponsors for providing funds for continued development.

[Learn More](#)

### Eligibility

Open to everyone:

- Existing or new accounts at picoCTF.org
- Age 13+
- Prizes and awards may have requirements. See competition rules for details.

The screenshot shows a challenge card for 'NewOverflow-1' under the 'Binary Exploitation' category. The card includes a description of the challenge, hints (1, 2, 3), and a submission form with fields for 'Input Flag' and 'Submit Flag'. The interface also features filters for categories like Binary Exploitation, Forensics, and Web Exploitation, and navigation tabs for Learn, Practice, Compete, and other user options.

**Learn**

Gain knowledge about introductory through advanced level cybersecurity principles in our noncompetitive features the picoGym and the picoPrimer.

**Practice**

Build your CTF skills, help yourself advance your personal best score, and prepare for the big show using our mini Competitions to practice.

**Compete**

Join the world's largest free hacking competition where you can compete for cash prizes, specialty awards, and a chance to visit Carnegie Mellon University.

**Visualize**

See yourself in a career in cybersecurity. Cybersecurity skills are in high demand in the workforce and the need grows as computers continue to be an integral part of everyday life.

# Try Hack Me



- Online Portal
- Free and Paid training
  - Subscription based
  - Training and Cyber range
  - Free and paid rooms
  - *Advent of Cyber* – December 2025

The image shows three rectangular cards, each representing a different training path:

- Cyber Security 101**: Features a glowing green circular interface with a central arrow. Below it is a green "Enroll in Path" button.
- Pre Security**: Shows a 3D perspective view of a city skyline with a large, tilted plane flying over it. The word "Enter" is written on the side of the plane. Below it is a green "Enroll in Path" button.
- SOC Level 1**: Displays a stylized blue and silver shield with a clock face and the text "L1". Below it is a green "Enroll in Path" button.

## TryHackMe Classrooms

Assign fun pre-built security labs and challenges to your students. Manage assignments in a teaching dashboard and monitor user progress.

Teach windows explo|

Get a FREE trial



TRUSTED BY

CompTIA Google [EPITECH.] Education Scotland

<https://tryhackme.com/>

<https://www.hackthebox.com/hacker>

- Online Cyber Range and Training Paths
- Free and Paid Training
  - Subscription Based
  - Occasional Free modules in giveaways (Discord)

## Learning Paths

Fully guided journeys into a wide range of skills or proficiency in specific security job-roles.



**Guided Mode**  
Enabled

Question 1

What script can be used to search possi

## Real-world Scenarios

Cutting-edge labs focusing on the latest technologies and attack vectors — released every week!



Irked



Bart



Charon

Steganography

Web Application

Authentication

Reverse Engineering

Powershell

Arbitrary File Upload

## Industry Certifications

Innovative courses and exams that will make a market-ready professional out of you!



# Active Countermeasures

- Threat Detection Software by BHIS
- Regular Threat Hunting and CTF Courses
  - Live demonstration courses with certificates of completion
  - Course material is available on YouTube
  - Access to their Threat Hunting Virtual Range
  - Downloadable community edition of software



## Giving Back – Free Training and Tools for the Community

Active Countermeasures is passionate about providing quality, no-cost educational content, and tools for those in the security field. Whether you're just getting started in InfoSec or a seasoned leader, rest assured we have something here for you.

Our free security training is a convenient way for you to acquire new technology expertise in the field of Threat Hunting and more. We are continually evolving, and we regularly host free educational webcasts offering vendor-neutral security education to keep you (*and ourselves*) one step ahead of the curve.

We also provide [open-source tools](#) for the community, including [RITA](#) for beacon analysis.

[FREE THREAT HUNTING COURSE](#)

[EDUCATIONAL BLOG](#)

[FREE TOOLS](#)

[EVENTS](#)



# CYBERPATRIOT

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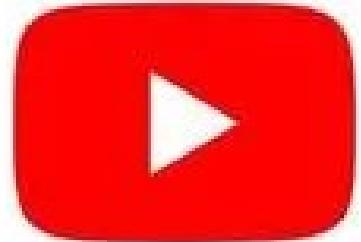
## Day 4 - SECTION 5

### Other Opportunities



# YouTube “University”

- Common term used for the multitude of channels available that promote learning content on various subjects
- Buyer Beware
  - Some training is outstanding; others not
  - Find a trainer that teaches the way you want to learn
  - Some provide basic knowledge, so that you buy their online course
- Sorted by Topic:
  - Networking: David Bombal; Network Chuck; Jeremy’s IT Lab; Lawrence Systems
  - Microsoft Azure: John Savill’s Training; Cloud Guru
  - Microsoft Applications: April Dunham
  - Cybersecurity: Simply Cyber; Daniel Lowrie; BHIS; Cyber Insecurity; CyberHub; Active-Countermeasures



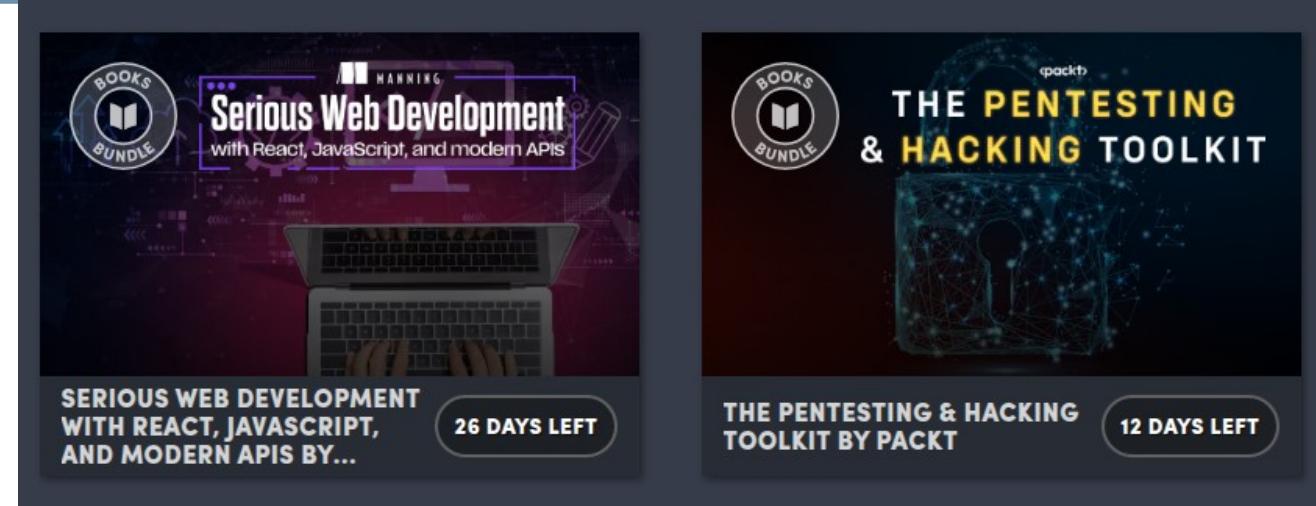
YouTube

# Online Books

Humble

- Humble Bundle
  - Online ebooks for sale
  - Includes charity donation
  - Usually <\$30 for 15-25 titles
  - Available in EPUB or PDF format
- Rotating titles and publishers
  - Packt
  - OReilly
  - Wiley

<https://www.humblebundle.com/>



# Tradepub



Search Resource Library



FEATURED EBOOKS

TRENDING RESOURCES

NEW RESOURCES

MY LIBRARY

ABOUT



Home

Information Technology

Data Infrastructure

Data Tools

Desktops, Laptops and OS

Enterprise Applications

IT Infrastructure

IT Management

Networking and

Communications

Security

## The Professional Research Library

The top resource for free professional and technical research, white papers, case studies, magazines, and eBooks.



- Online marketing clearing house for technology whitepapers and research materials
- Does offer free ebooks and technology guides periodically
  - Packt Publishing
  - Wiley Publishing

<https://www.tradepub.com/>