



Entering the Field of Cybersecurity | Advice for Teens

The SANS mission is to empower current and future cybersecurity practitioners through training, education, and skills validation to create a safer global community. Couple this with the vast shortage of cybersecurity professionals worldwide, and SANS was motivated to introduce the first-ever SANS Cyber Camp for Teens, August 11-12, 2020. In conjunction with the event, several SANS instructors have provided advice for teens who want to position themselves for a successful career in cybersecurity.

One of the most critical aspects of entering into a professional career in cybersecurity is to have a clean record. However tempting it may be to hack something, don't be a punk. It may seem fun now, but you'll be throwing away amazing opportunities and significant, legitimate income in your future. With so many social media apps, it's also tough not to want to dive in and share thoughts, comments, and feelings. The hard part is remembering that anything you say and do can be used against you or your family in the wrong hands. You can't always take back what you say, do, or share. Think first. Be safe.

LEARN, PLAY, BREAK

The most common piece of advice from our instructors is simple to take time to learn hands-on, engage with technology, break it, and rebuild it. Build your own home lab. Be curious and don't be afraid to make mistakes.

"The more mistakes you make, the more you are learning. The more you learn how technology works, the better at cybersecurity you become." - *Lance Spitzner, SANS Senior Instructor*

"Save money by learning how to build your own stuff, like your own computer, and then mess with it so much that you break it! Then fix it. Break it again. Repeat that over and over again. – *Jorge Orchilles, SANS Certified Instructor*

Don't strive to be a pro. Strive to make something cool that inspires you. I'm where I am today because I discovered GameMaker when I was 12 years old. I made a bunch of games I was proud of, although all were objectively terrible and none considered best practices. They inspired me to keep learning.



Brandon Evans

In the words of *John TerBush, SANS Associate Instructor*, “If you want to physically protect a building, you need to understand access points such as doors, windows, and structural weaknesses. For information security, we are talking about knowing the basics of computer networking. Understanding how computers function and communicate in the first step in defending them from attack.”

USE FREE RESOURCES

The number of resources is endless and *so many* of them are FREE – from YouTube, to virtual summits and conferences, to Linux, evaluation versions of Windows Server, Python, PowerShell, Wireshark and more. There are no age limits. [Scholarships and community programs](#) for teens, females, vets, and more are available.

Develop a list of things you want to know more about and pursue them regularly. Schedule time to consume webcasts, podcasts, Twitter, YouTube videos. As you do, you will surely identify your interests. Pursue them! Be curious and develop a list of excellent questions to ask. Be brave and find a few informal mentors who can teach you new things.



Russell Eubanks

FIND A MENTOR

“Join clubs, camps, meet-ups, and presentations around cybersecurity. If there’s no club at your school, create one by first gaining sponsorship from a professional organization like InfraGard, Cyber Fraud Task Force, SANS, ISSA, etc. Then partner with these professional chapters to gain mentorship, guidance, and support through their membership of professionals.” -*My-Ngoc Nguyen, SANS Certified Instructor*

“Seek out mentors who will care about you and share insights” – *G Mark Hardy, SANS Principal Instructor*

Find people who have done anything you are interested in and ask them to show you how. Even if - especially if - they are older or well-known professionals. There are always people willing to help if you push your comfort zone a little. Those relationships always pay off in ways you can't predict!



Jason Nickola

BE CURIOUS AND TAKE YOUR TIME

“Pick something you already enjoy doing and then learn all about that, especially how it works under the hood. Go beneath the surface and ask WHY? As you learn more theory, you’ll be in a better position to map that theory onto tools and operating systems with which you’ve already had hands-on experience.” - *Jason Fossen, SANS Fellow*

Don't be too quick to jump into a specific job role or career path. Take your time to explore the many different fields of cybersecurity: offensive, defensive, architectures, security operations, cloud, networking, etc. Reach out to those with expertise in these fields and see what their day-to-day looks like. And don't be too worried about what path you follow! The key is to enjoy the path and those you'll find along the way!



Ismael Valenzuela

There are many avenues to explore within the overarching, broad topic of cybersecurity. You may find that hands-on technical work is not your path, but the passion for the industry remains. Know that there are a plethora of options, regardless of skill set and area of interest, that need to be filled by capable professionals.

Don't stress about finding the “perfect job.” There is no “perfect job,” but there are plenty of jobs that are “perfect fits” for your skills. Find something you like that provides an income and follow the path that appears. My love of writing and event planning took me into marketing communications, advertising, PR, trade shows, special events, and now security awareness. One common thread....writing.



Sue Derosier

Cybersecurity is a growing field with a smaller and smaller number of skilled professionals available to fill the open job roles. There are many avenues to take and a slew of resources, organizations, and professionals who want to help. With this in mind, here are a few resources from SANS Institute to support youth interested in entering the cybersecurity field.

CyberStart: Building a national pipeline of talented students entering the cybersecurity workforce. High school and college programs available.

GirlsGo CyberStart: High school girls mastering new skills in an online training game battling for cash prizes. Played independently or through a club.

Cyber FastTrack: 18 years or older, US Citizen or Permanent Residents, participating in a 2-day Capture the Flag event to earn a \$22,000 scholarship with SANS Technology Institute

Cyber Discovery: 13-18 year olds living in the UK playing a vast online training game to become the next generation of cybersecurity leaders.

10 Coolest Jobs in Cybersecurity [downloadable poster](#)

Thank you to the SANS instructors who provided content for this blog: Brandon Evans, Jorge Orchilles, Russell Eubanks, Jeff McJunkin, Jason Nickola, G. Mark Hardy, Lance Spitzner, Adrien de Beaupre, Bryce Galbraith, My-Ngoc Nguyen, John TerBush, Doc Blackburn, Ismael Valenzuela, Scott Lynch, Jason Fossen, and Sue Derosier.

The SANS Institute is the most trusted and by far the largest source for [information security training](#) and [security certification](#) in the world. The SANS mission is to teach individuals the essential skills and techniques needed to protect and secure an organization's critical information and business systems.



Entering Cybersecurity: Advice for Teens

do NOT break the law

Don't disqualify yourself from the coolest career in the world. Be smart. Think before you act.



protect
first



be curious



listen to
experts



save money:
piles of free
resource

jump in



Career Path

don't commit too early. take time to explore various options. do what you enjoy.



be brave.
find a
mentor



join
clubs

Build a home lab



regular pursuit
of interests

Mistakes = Learning

don't be afraid to try AND FAIL. fail often. try again.



attend free events

try



What problem do
you want to
solve?



build &
break
and
re-build