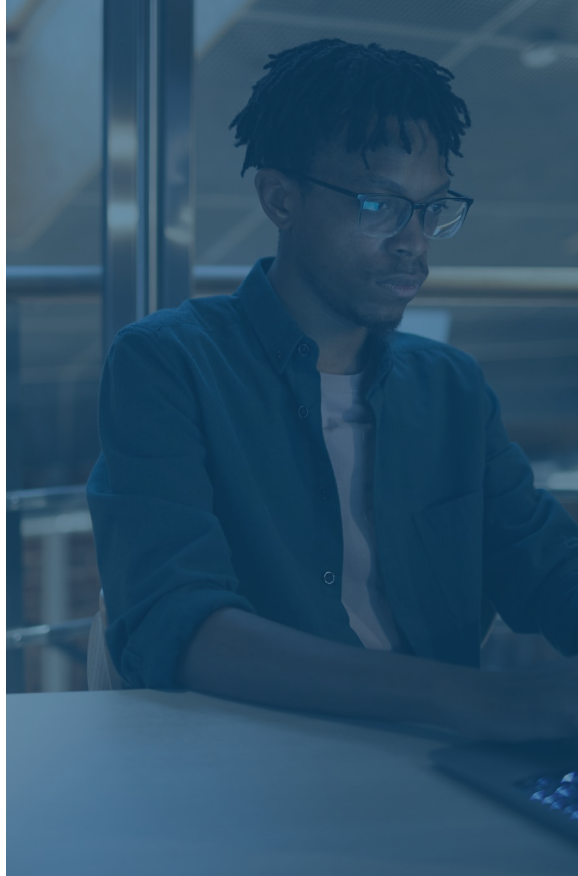**SANS** The most trusted source for cybersecurity training, certifications, degrees, and research

SANS 2020
Immersion Academy Annual Report

An accelerated, intensive training and certification program that develops the real-world knowledge and hands-on skills needed to defend today's information security systems.

SANS
CYBER IMMERSION ACADEMY

VetSuccess
ACADEMY

Women's
ACADEMY

Diversity Cyber
ACADEMY

CyberWorkforce
ACADEMY

United States Cyber Academy Programs

"The SANS Institute is renowned and respected for its world-class cyber training. CACI is pleased to team with SANS on this critical workforce development initiative, which will help fill a pressing need for cybersecurity experts in industry and government."

Mike Mourelatos
Vice President and Chief Technology Officer of National Services, CACI

The increasing demand for talented cybersecurity professionals, and the challenge higher education institutions face in educating sufficient numbers of them, is a well-documented problem. However, developing a pipeline of qualified entry- to mid-level cybersecurity professionals doesn't have to be a never-ending challenge–there are proven solutions to close the skills gap. We need to change our view of who can be a good cybersecurity professional. The overall problem isn't training the people, it's finding the right people to train.

Over the last six years, innovative approaches in the U.K., U.S., and Canada have successfully leveraged aptitude testing and built sustainable pipelines of diverse, qualified cybersecurity talent. These include the Cyber Immersion Academies. The Academies are proven reskilling and upskilling programs that quickly generate trained and certified professionals ready to work in approximately six months. They provide pathways to a career in cybersecurity for individuals with strong aptitude and passion for cybersecurity such as:

- *Women*
- *Black, indigenous, and people of color (BIPOC)*
- *Military veterans*
- *Career changers*
- *Recent graduates*

Workforce strategies such as reskilling and upskilling are effective ways to address talent gaps and shortages. Historically, these strategies have mobilized industries when shortages are dire. As the demand for cybersecurity professionals grows and other professions decline, reskilling and upskilling will provide displaced workers the skills they need to start a new career. The Cyber Immersion Academies utilize proven aptitude testing to identify high-potential candidates and provide employers an opportunity to hire skilled talent or retrain current employees into cyber. The curriculum is intensive and includes multiple technical training courses and industry-leading certifications.

This report provides detailed information about the Academies including how they work, how to engage with the program and hire graduates, as well as inspiring success stories from graduates and employers who have hired them.

Alan Paller
Director of Research, SANS Institute

Program Overview

The Cyber Immersion Academies are a set of immersive training programs that are producing high-quality cybersecurity professionals ready to enter information security roles immediately upon graduation. The Academies provide advanced technical training, industry-recognized certifications, and connections to jobs in cybersecurity. The Academies are 100% scholarship-based for qualified participants who are looking to enter the field.

VetSuccess Academy

The VetSuccess Academy is a unique opportunity for transitioning military service members, active duty spouses, and veterans who transitioned within the last 10 years to learn in-demand cybersecurity skills and earn GIAC certifications to start a career in cybersecurity. VetSuccess was launched in 2015 and continues to grow each year.

Women's Immersion Academy

This Academy increases gender diversity in cybersecurity by providing women the opportunity to learn in-demand cybersecurity skills, earn GIAC certifications, and start a career in cybersecurity. The Women's Immersion Academy was launched in 2016 and runs annually.

Diversity Cyber Academy

In partnership with the International Consortium of Minority Cybersecurity Professionals (ICMCP), the Diversity Cyber Academy increases diversity in cybersecurity by providing black, indigenous, and people of color (BIPOC) with a passion and aptitude for cybersecurity the opportunity to learn in-demand cybersecurity skills, earn GIAC certifications, and launch a career in cybersecurity.

Cyber Workforce Academy

Additional Cyber Workforce Academies may be designed via partnerships with corporate sponsors and government or nonprofit grant programs.

> *"I learned a lot in my college program, but the SANS Immersion Academy gave me the ability to learn about topics we never even touched on in school and helped me be more fluent in the field. My employer saw that I had done the courses in three months, so that was an obvious sign to him that I was trainable."*
>
> **Steve Kalamaras,** Security Engineer, CCP

Immersion Academy Annual Report
Curriculum & Certifications

Students complete up to three technical courses and industry-leading GIAC certifications

OPTIONAL PREREQUISITE

SANS FOUNDATIONS Computers, Technology, & Security*

*Foundational IT and computing learning for those with no technology background

CORE SANS COURSE	GIAC CERTIFICATIONS
SEC401 SANS Security Essentials Boot Camp Style	**GSEC** GIAC Security Essentials Certification
SEC504 Hacker Tools, Techniques, Exploits, and Incident Handling	**GCIH** GIAC Certified Incident Handler

The third course is an elective. Typical selections include:

ICS410 ICS/SCADA Security Essentials	**GICSP** Global Industrial Cyber Security Professional
FOR500 Windows Forensic Analysis	**GCFE** GIAC Certified Forensic Examiner
SEC501 Advanced Security Essentials, Enterprise Defender	**GCED** GIAC Certified Enterprise Defender
SEC503 Intrusion Detection In-Depth	**GCIA** GIAC Certified Intrusion Analyst
SEC511 Continuous Monitoring and Security Operations	**GMON** GIAC Continuous Monitoring Certification
SEC542 Web App Penetration Testing and Ethical Hacking	**GWAPT** GIAC Certified Web Application Penetration Tester
SEC560 Network Penetration Testing and Ethical Hacking	**GPEN** GIAC Certified Penetration Tester

Any set of SANS courses may be combined to create a custom curriculum for your organization's needs.

Statistics

725+ scholarships awarded
91% employed within six months of graduation

Core Curriculum Student Performance from 2015 to December 2020

- **93%** success rate
- Highest score of **99%**
- **85%** overall average
- **86%** average for those passing

- **91%** success rate
- Highest score of **99%**
- **83%** overall average
- **84%** average for those passing

"When it comes to getting a job, SANS training carries a lot of weight. I noticed that in my interviews. Every time I mentioned that I had been through the program and had earned my certifications, I could see that people simply reacted more favorably."

Dameon Launert
Security Incident Response Center Analyst, Zachary Piper Solutions

$13,000,000
Approximately $13 million contributed in scholarships from 2015 to 2020

360 hours
Students receive up to 360 hours of hands-on training and skills building

Employer Roadmap

When you have entry- to mid-level cybersecurity positions to fill, SANS Cyber Immersion Academies can help!

SANS Cyber Immersion Academies are a set of immersive training programs that graduate new, highly skilled cybersecurity professionals ready to enter information security roles immediately upon graduation. The Academies provide advanced technical training and industry-recognized GIAC certifications, preparing students to launch a new career in cybersecurity.

HOW SANS CYBER IMMERSION ACADEMIES WORK FOR EMPLOYERS

Participants' Gender

64% Male
36% Female

VETTING PROCESS

- Aptitude testing to identify candidates with high potential for cybersecurity
- Personal behavioral interviews to identify passion and motivation for cybersecurity, explore previous experience, and identify lifelong learners

Participants' Level of Education

1% Associates
57% Bachelors
15% Masters
1% Doctorate
26% None

TECHNICAL & CAREER MENTORSHIP

- Industry experts provide mentorship to all students
- Soft skills guidance and career services support

RECRUIT

- We source new talent from outside the industry, no poaching

Participants' Ethnicity

1% American Islander/ Alaskan Native
11% Asian/Pacific Islander
17% Black/African American
12% Hispanic
32% White/Caucasian
27% *Other/Unknown

*Data not collected in all Academies for 2019 or early 2020.

TRAINING & CERTIFICATION

- Up to three SANS training courses and the associated GIAC certifications
- Hands-on labs and practical exercises
- Industry-recognized GIAC certifications

To source candidates and share open positions with our students, please email **hiringtalent@sans.org**.

Ways to Engage & Hire Talent

From sponsoring an Academy to hiring graduates, there are a variety of opportunities for employers to engage with the SANS Cyber Immersion Academies. Below are current engagement opportunities. We can also create a plan to meet your organization's specific needs. Contact us at **hiringtalent@sans.org** to learn more about engaging with the Academies and similar programs to meet your hiring goals.

> *"It was the information learned in SEC401: SANS Security Essentials that I credit with getting me my first job as Information Security Analyst at a managed security service provider. On my interview, I was asked questions that came straight from my GSEC certification test. In fact, I was hired before I finished the Diversity Cyber Academy. My interviewers were very familiar with SANS and understood the superior training I was receiving."*
>
> **Anthony Forde**, Incident Response Consultant, Cisco Systems Inc.

> *"The SANS Cyber Immersion Academy provided a great opportunity for us to hire qualified cybersecurity professionals with technical, hands-on skills and GIAC certifications. The graduates are already making a difference in the company and eager to learn more."*
>
> **SOC Manager**
>
> Fortune 500 Financial Services Firm

Employers that have hired Academy Graduates

amazon

blackpoint

Booz | Allen | Hamilton

CACI
EVER VIGILANT

Carbon Black.

CISCO

citi

Deloitte.

GEICO.

IronNet Cybersecurity

Microsoft

NTT Security

OPTIV

PLEX

ThermoFisher
SCIENTIFIC

US Army Cyber Protection Brigade

Walmart

Ways to Engage & Hire Talent

Sponsorships

Single Scholarship

- Sponsor a single scholarship for an Academy student
- Recognition as sponsor in marketing materials and on website
- Webinars with cohorts

Strategic Industry Sponsor

- Sponsor five (5) Academy student scholarships
- Access to program students for hiring (no guarantee of hires)
- Distribution of job listings to cohorts
- Recognition as sponsor in marketing materials and on website
- Webinars with cohorts

Annual Program Sponsor

- Sponsor an Academy cohort (12 students)
- First access to students for hiring (no guarantee of hires)
- Distribution of job listings to cohorts
- Branded cohort with company name
- Recognition as sponsor in marketing materials and on website
- Introductions to target students for interviews
- Webinars with cohorts
- Dedicated press release and social media posts

Partner Options

Employer Partner

- Share your organization's open cybersecurity roles and meet, interview, and potentially hire Immersion Academy graduates
- A one-on-one webinar to Academy students and grads showcasing your organization, the culture, the types of security jobs you have, and what the day in the life of one of these positions looks like
- Logo placement on SANS Immersion Academy website that highlights your commitment to diversity and inclusion

Community Partner

- Share Immersion Academy information with your network, contacts, and social media channels
- A one-on-one webinar to Academy students and grads showcasing your organization or association
- Logo placement on SANS Immersion Academy website

Mentor Partner

- Share your cybersecurity expertise with Academy students
- Provide career support and advice to Academy cohorts
- Help graduates make connections to other cybersecurity professionals

Hiring Talent

When you are looking to hire new cyber talent, we have a unique pipeline filled with certified candidates ready to start a new career. We will share your job postings with our graduates and connect you with eligible candidates. Contact **hiringtalent@sans.org** to get started!

Success Stories

"The SANS Cyber Immersion Academy gave me the hands-on training employers were looking for. Going through the courses, coupled with the additional services they offered, helped me successfully transition and gave me opportunities I wouldn't have had otherwise."

Chris Harper
Senior Cybersecurity Analyst, Craina Consulting

"I tried everything, including landscaper, snowboard instructor, caregiver, fast food worker, and dog trainer. I found my niche when I entered the cybersecurity industry. This was definitely what I was meant to do."

AJ Langlois
IT Risk and Security Consultant
MetLife

"Chris Harper was a GREAT hire. I have been highly impressed by his real-world technical skills and competencies and his valuable military experience. Chris now provides cybersecurity engineering support to an Army Medical system that he uses as a combat medic when on active duty. His ability to meet the complex demands of the job is a testament to his world-class SANS training."

Thomas El-Khatib
Founder and President, Craina Consulting

"The Cyber Immersion Academy graduate we hired joined the Cyber Threat Management team and had an immediate positive impact. She quickly garnered the respect of her teammates as she is able to apply the skills acquired though the SANS Cyber Immersion Academy daily to the benefit of BB&T."

Hartwell Watkins
VP, Manager-Cyber Threat Operations Center and Threat Intelligence, BB&T

Success Stories

Richard Dinio
Senior Electronic Warfare Technician, Tekla Research Inc.

"I found that most other certification programs are a two-week data dump and then a test. The SANS Cyber Workforce Academy – Maryland offers a strong hands-on component to the program. I don't have a technical background, so this real-world experience was terrific."

Richard Dinio was a signals intelligence analyst in the U.S. Navy, where he focused on electronic warfare for more than 22 years. Richard was responsible for collecting and processing airborne, shipborne, and land-based radar signals.

Today, Richard is a Senior Electronic Warfare Technician in Engineering at Tekla Research Inc., where he is responsible for cyber testing and evaluating military helicopters. Tekla provides technical and engineering support and management expertise to the Department of Defense. Richard examines mission systems in helicopter avionics and looks at all threat vectors, enterprise and non-enterprise, to mitigate nefarious activities that could jeopardize a mission.

While no longer in the U.S. Navy, Richard continues to serve our country by ensuring that military aircraft can meet today's challenges and respond to growing cyber threats.

"The day Rich came aboard at Tekla Research, he was thrown into the fire as the cybersecurity test expert, alone and unafraid. Rich's cybersecurity training and his experience as a Navy Chief Petty Officer enabled him to adjust to the new environment, learn the aircraft systems and laboratory capabilities for cyber testing, and get integrated as the cyber lead on many projects. I believe SANS Cyber Workforce Academy provided a firm foundation in cybersecurity and enables Rich to envision potential threat vectors and system vulnerabilities in light of cyber-related test requirements for the systems and projects that he supports."

Ivan Thomas
Senior Analyst, Tekla Research Inc.

SANS

5705 Salem Run Blvd.
Suite 105
Fredericksburg, VA 22407

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IMMERSION
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To learn how the SANS Immersion Academies can help your organization assess, train, certify, and hire highly skilled cybersecurity talent faster and more efficiently, please contact:

For Academies
immersionacademy@sans.org

For Hiring
hiringtalent@sans.org

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