



WiCyS Security Training Scholarship 2020-2021

Program Overview

The Women in Cybersecurity (WiCyS) Security Training Scholarship made possible by Google was a collaborative program spearheaded by WiCyS in partnership with SANS Institute to promote increased interest and women's participation in the cybersecurity field.

The program offered a multi-stage tiered approach to applicant selection allowing a larger pool to benefit from meaningful participation in the Security Training Scholarship program.

The first stage utilized a custom-designed SANS BootUp Capture the Flag (CTF) and offered 445 individuals the opportunity to compete in a beginner-level, new to cyber user-friendly competition, run for 48 hours, specifically designed to encourage interest in the cybersecurity profession, grow individual confidence, and identify women who may benefit from enhanced training to aid in transitioning into careers in cybersecurity. In addition to the BootUp Platform provided by SANS, players also had access to a dedicated slack channel and were provided hints, if required, to encourage continued gameplay and aid in confidence building. Based on performance and other factors such as work experience in cyber (those with paid experience were disqualified), veteran status, and current certifications, 112 individuals were selected for the next round.

The second stage of the program utilized CyberStart Game, a fun, immersive experience which uses gamified learning to help individuals learn the fundamentals of Information Security and progress through increasingly difficult challenges. CyberStart is an on-demand cyber security educational tool designed for young adults. Built by industry experts, it encompasses a combination of textual, visual and auditory teaching methods in a gamified learning environment, to build students' technical skills and creative thinking. Players become an agent for the virtual Cyber Protection Agency, where they embark on a mission to stop criminal gangs who are using their cyber skills to do damage online. Some topics included cryptography, network scanning/log analysis, command line basics, binary reversing, SQL Injection and XSS, building security tools using Python, network forensics and the fundamentals of penetration testing. Following 6 weeks of access, the top 50 scorers were invited to apply to the final stage of the program.

The final stage of the program consisted of 3 SANS technical training courses and the opportunity to earn the associated GIAC (Global Information Assurance Certifications) certifications. The application involved completion of the Cyber Talent Enhanced Assessment and completion of an essay detailing the applicants' goals and how the scholarship would have a positive impact on their careers moving forward. 15 students were offered and accepted the scholarship for 3 SANS courses and 2 GIAC certifications. Throughout the final stage of the program students had regular meetings with their program mentor (a former scholarship program graduate and current cybersecurity professional), benefitted from specialized webinars focused on transitioning into cybersecurity, and received access to Career Readiness resources including personalized resume review and job search assistance.



“This has given me a solid set of skills and understanding to better steer my career path, plus globally recognized certifications to back up the knowledge I've earned.” - Liz Beattie

Scholarship Details

Over \$600,000 of training provided by the program.

- **112 people received training-based scholarship worth \$1,000 each.**
 - Includes CyberStart Game and SANS BootUp CTF
- **15 Full Scholarship Recipients received training valued at over \$20,000 each.**
 - CyberStart Game and SANS BootUp CTF
 - SANS SEC275 Foundations & Exam
 - SANS 401 Security Essentials Bootcamp and GSEC
 - Elective - SANS SEC504/GCIH, SEC488/GCLD, SEC560/GPEN, or SEC548/GWAPT

Product	Market Price	Participants	Total Price for Program
BootUp CTF	\$ 700.00	445	\$ 311,500.00
CyberStart Game	\$ 300.00	112	\$ 33,600.00
SEC275 - Foundations	\$ 3,020.00	15	\$ 45,300.00
SEC401 & Cert	\$ 8,119.00	15	\$ 121,785.00
Elective Course & Cert	\$ 8,119.00	15	\$ 121,785.00
Total Value	\$ 20,258.00		\$ 633,970.00

“If (the) elective had not been an option, CyberStart (Game) was the best part in terms of learning experience, as it gave hands on learning and made concepts stick. Having dedicated 8 weeks for it was a great idea. I learned about so many tools and ways to think because of that experience. I still refer to my document for tools and commands.” - Hema Pillay



PROGRAM OUTCOMES

- **100%** of Full Scholarship Recipients said they expect to have long careers in cyber security (15+ years) **AND felt** that their scholarship positively aided their careers.
- **50%** of Full Recipients hired **before program ended**.
 - Roles include: Cloud Security Engineer, Security Engineer, Security Analyst, and Security Consultant
- **100% Pass Rate for All GIAC Certification Exams**
 - Average GIAC Exam Score was <90%
 - Highest Scores from Cohort - 99% on GCIH
 - 28 GIAC Certifications earned as of June 2021

“Thank you for this amazing opportunity. This scholarship really helped me career change into a technical role and be taken seriously as a woman.” - Astride Despéroux

PROGRAM METRICS

Webpage: 17.4K views

News Release: 46.4M potential audience/516 engagements

International Participation: 5 Countries were represented by the 15 Full Scholarship Recipients

Age: Participants ranged from young college students to experienced professionals transitioning into cyber security

Applicants: 900+ WiCyS members (5% of Applicants are Female Veterans), Variety of Educational backgrounds including Associates, Bachelors, and Masters Programs. Preference was given to individuals not currently working in cyber security, those without advanced level certifications, and members of historically underrepresented populations in Cyber

- Common Majors: Computer Science, Cybersecurity, Information Technology
- Non-technology degrees included Business Administration, and Healthcare

STAGE 1: APPLICANT EDUCATION	
Education Status	Count of Education
I am currently enrolled in school	364
I have graduated	214
Other	58
Grand Total	636



STUDENT HIGHLIGHTS



Linda La previously worked as an Administrative Assistant where her interest and passion for cybersecurity was sparked by security awareness training. After enrollment in a training/apprenticeship program did not lead to a job offer, she stumbled upon the WiCyS program where she competed in her first Capture the Flag competition. She devoted herself to completing the challenges and took full advantage of the opportunity WiCyS Security Scholarship offered, completing CyberStart game and went on to complete three SANS courses and earned the GSEC and GCIH certifications. She now works as a Security Analyst for an MSSP.

Melinda Bigger has a background in Chemical Engineering and worked in that industry for 5 years. She began taking courses at her local community college after experiencing a layoff and continued to pursue her passion in cybersecurity due to personal interest. She joined WiCyS in August and pursued the scholarship as a means to gain confidence and technical skills. After posting about completing her training and certification on LinkedIn, an employer reached out with a job offer. She now holds GSEC and GCLD certifications and is working as a Cloud Security Engineer at a biotechnology firm.



Surabi Ramamurthy was first exposed to cybersecurity through the Girls Go Cyberstart program in High School which led her to pursue a degree in Computer Science specializing in cybersecurity. She credits the WiCyS Security training scholarship with helping to provide a good understanding of how cybersecurity is applied in “real-world practice” and with “helping to alleviate some of her Imposter Syndrome.” She is now an Information Security Intern at a multinational financial services corporation and holds GSEC and is preparing to take the GCIH exam.