

ANITA BORG INSTITUTE

GRACE HOPPER

CELEBRATION OF WOMEN IN COMPUTING

Student Opportunity Lab: [Checking out a Career in Cybersecurity?](#)

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Introduction

According to a Peninsula Press analysis (a Stanford project) of the U.S. Bureau of Labor Statistics (BLS), more than 209,000 cybersecurity jobs in the U.S. are unfilled and the demand for information security professionals is expected to grow by 53% through 2018. With more jobs than there are trained people to fill them, information security analysts are compensated well. The U.S. BLS reported the 2012 median wage for information security analysts was \$86,170, compared to the 2012 national median salary of \$34,750.

Merriam Webster defines cybersecurity as “the state of being protected against the criminal or unauthorized use of electronic data.” However, as an industry, it is so much more than the dramatically stylized hackers featured in today’s movies and television shows. Here are some major career paths within the information security industry:

- **Builders*** are those building security products, infrastructure, and services.
- **Breakers*** include ethical hackers conducting security tests, reverse engineers, and digital forensic specialists.
- **Defenders*** work on tools and techniques that help detect and respond to attacks against applications and infrastructure.
- **Leaders** include those from business and IT with the common goal of championing security efforts via policy making and thought leadership.
- **Influencers** include project and program managers with the common goal of coordinating, influencing and managing security-related programs.
- **Researchers** can be found in academia, government, and private sectors working on cybersecurity issues of the future.

Career Path Details

After you gain some experience in these roles, you can progress to Leaders/Influencers.

[Leaders](#) create, foster and develop a community of talented women in cyber-security through educational activities, relationship building, mentoring and visibility opportunities like speaking on security in conferences, writing security blogs. Invite Security professionals to bring in their learnings and expertise, evaluate how security impacts your business and partnerships, train and mitigate to have a greater impact on your product security for your customers.

*Key security groups “builders, breakers, and defenders” are terms coined by OWASP: See owasp.org for more details.

Influencers work mainly as a Program/Project Manager following industry security best practices and prioritization on any product or services and driving security implementations, in any enterprise. The goal is to get all the correct stakeholders united to address the key security issues that they are facing. The intent is to drive security by getting the best people together and collaborate to solve the right problems in areas where your organization/products needs your expertise.

Practical Tips: The 3 E's

Education: Join Local chapters on security, attend Security conferences, Masters in CyberSecurity, Coursera has courses, YouTube videos, certifications like CISSP, PMP.

Experience: Setup a secure development Lifecycle in your business. Get security features implemented on high revenue products of your company. Think security issues from perspective of Before, During and After.

Exposure: RSA conference, BlackHat, DefCon, OWASP conferences (older videos at https://www.owasp.org/index.php/Category:OWASP_Video)

Top 25 Influencers you should follow (<http://www.tripwire.com/state-of-security/security-data-protection/top-25-influencers-in-security-you-should-be-following/>) - Tripwire

Resources

Women in Cybersecurity (WiCyS) community: <https://www.csc.tntech.edu/wicys/resources/>

Women's Society of Cyberjutsu community: <http://womenscyberjutsu.org/>