

# Another Informal Chat about Careers in Cyber Security

Amherst Security Group

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# Robert Hurlbut



## Threat Modeling Lead / Architect, Trainer

Principal Application Security Architect / Threat Modeling Lead @ Aquia, Inc.

Microsoft MVP – Developer Security 2005-2009, 2015-2023

(ISC)2 CSSLP 2014-2023

Co-host with Chris Romeo – Application Security Podcast ([@AppSecPodcast](#))

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Boston .NET Architecture Group ([@BostonNETArch](#)),  
Amherst Security Group ([@AmherstSec](#))

## Contacts

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# Previous AmSec Group talks about Careers in Cyber Security

- Informal Chat about Careers in Cyber Security (Robert Hurlbut) - 12/8/2021  
<https://www.meetup.com/amherstsec/events/wpvwxqyc cqblb/>

Shooting Your Shot: The Fallacy of Shooting Your Eye Out (Alyssa Miller) - 1/12/2022  
<https://www.meetup.com/amherstsec/events/wpvwxqyd ccbqb/>

Notes and video link are in the comments for each of these sessions.

# What do we mean by Cyber Security?

*Cybersecurity is the practice of protecting critical systems and sensitive information from digital attacks. Also known as information technology (IT) security, cybersecurity measures are designed to combat threats against networked systems and applications, whether those threats originate from inside or outside of an organization.*

\*Definition from

<https://www.ibm.com/topics/cybersecurity>

# Examples of day-to-day responsibilities in cybersecurity

The following are some of the typical responsibilities of cybersecurity professionals:

- **Monitoring for attacks across various systems**
- **Responding to successful attacks that breach a system or systems**
- **Assessing systems and people for security weaknesses (known as *vulnerabilities*)**
- **Tracking, validating, and reporting on the fixing of those vulnerabilities**
- **Working with developers on practices for developing secure software**
- **Designing and deploying security measures (also known as *controls*)**
- **Working with executive leaders to secure budgeting for security**
- **Providing evidence of security controls for auditors**
- **Maintaining various security systems (user accounts, firewalls, and so forth)**

\*From Cybersecurity Career Guide by Alyssa Miller.

# Resources - Books

- Cybersecurity Leadership: Powering the Modern Organization by Dr. Mansur Hasib  
<https://www.amazon.com/Cybersecurity-Leadership-audiobook/dp/B00U0EXIQE>
- Bring Inner Greatness Out: Personal Brand by Dr. Mansur Hasib  
<https://www.amazon.com/Bring-Inner-Greatness-Out-Personal/dp/B08V97M76H>
- Cybersecurity Career Guide by Alyssa Miller  
<https://www.amazon.com/Cybersecurity-Career-Guide-Alyssa-Miller-ebook/dp/B0B2XRMS9T>
- Confident Cyber Security: How to Get Started in Cyber Security and Futureproof Your Career by Dr. Jessica Barker  
<https://www.amazon.com/Confident-Cyber-Security-Started-Futureproof/dp/1789663407>

# Resources - Articles

- “Why it's ok to be an amateur in Cyber Security” by Anna Collard  
<https://www.annacollard.com/post/why-it-s-ok-to-be-an-amateur-in-cyber-security>
- Top 10 Cybersecurity Jobs in 2023: Career and Salary Information  
<https://www.simplilearn.com/tutorials/cyber-security-tutorial/cyber-security-jobs>
- 20 Coolest Careers in Cybersecurity  
<https://www.sans.org/cybersecurity-careers/20-coolest-cyber-security-careers/>

# Resources - Training

- Wild West Hacking  
<https://wildwesthackinfest.com/>
- Antisyphon InfoSec Training  
<https://www.antsyphontraining.com/>
- HackerOne  
<https://www.hackerone.com/hackers/hacker101>
- Pluralsight (<https://www.pluralsight.com/>), LinkedIn Learning (<https://www.linkedin.com/learning>)
- Boot Camps
- Bachelor's, Master's, and Doctoral / PhD Cybersecurity-related degree programs  
Various universities – many becoming available as hybrid or online-only  
In post-Covid era, there may be less of stigma about online vs. in-person degrees



# Resources - Jobs

- LinkedIn  
<https://linkedin.com> (consider Premium service while job hunting)
- Glassdoor  
<https://glassdoor.com> (review salaries, experiences of companies)
- Some companies on LinkedIn have offered free training or help to those who have been laid off from technical jobs (Adam Shostack, etc.)
- Some companies are offering paid Apprenticeship opportunities to those without a Cyber Security background (Aquia, etc.)
  - Possible search: <https://www.indeed.com/q-Paid-Apprenticeship-Cyber-Security-jobs.html>

# Resources - Certifications

- Consider what certs are important to your industry
  - Government: Many agencies require certifications
  - Finance, Healthcare: May be required or recommended
  - Other: May not be as important – but could help you stand out
- (ISC2) CISSP, etc.  
Certs requiring experience - showing you have actively participated in security activities can help
- CompTIA, CompTIA Security+
- When thinking about certs, determine a strategy based on cost, time to study, time to renew

# Other Considerations

- Cover letter - write one
- Resumes - customize, be mindful of keywords / AI scanning, consider getting a review or help with rewriting
- GitHub account - shows active work
- Starting a blog?  
<https://javvadmalik.com/2021/12/03/november-blog-a-day-reflections/>
- Find a professional mentor
  - Tanya Janca ([@shehackspurple](https://twitter.com/shehackspurple)) makes calls each Monday for [#cybermentoringmonday](https://twitter.com/cybermentoringmonday) on Twitter

# Keeping Up To Date

- LinkedIn (<https://linkedin.com>)
- Dark Reading (<https://darkreading.com>)
- CSO Online (<https://www.csoonline.com>)
- Discord and/or Slack workspaces and channels
- Podcasts: DarkNet Diaries, others  
(<https://www.sans.org/blog/cybersecurity-podcast-roundup/>)

# Upcoming Local Events

- NERD Summit 2023 at UMass Amherst (3/17-3/19) \$0-\$50
  - <https://nerdsummit.org>
  - Security in Drupal: what can go wrong? (Saturday, 3:15 PM)
  - Threat Modeling Workshop (Sunday, 1:00 PM)
- NH Cybersecurity Symposium at Manchester Community College, Manchester, NH (3/28-3/30) - FREE
  - <https://www.nhcybersecuritysymposium.com/>
- OWASP Boston Application Security Conference (BASC) 2023 at Microsoft Offices, Burlington, MA (4/1) - FREE
  - <https://www.basconf.org/>
  - Topics: Defense-in-depth, Open Source Software, Cloud Native Apps, JavaScript Security, Threat Modeling, OWASP ZAP, Security Vulnerabilities, GraphQL, Mobile App Security

# Questions?



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