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Agenda

- Career Search
- Cyber Certifications
- Competitions
- Open Source/Pay Training Platforms
- Quality Resources

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Careers – Big Picture:

- Government
 - Federal
 - State
 - Municipal
- Government Contractor
- Healthcare
- Financial
- Commercial
- Search Boards (Indeed, Glassdoor, etc.)



Government:

<u>Federal:</u> Jobs specifically tied to cyber are located under cybercareers.gov as a consolidated marketplace. Additional Opportunities through USAJOBS. Typically jobs are searchable through either 'Cyber' categorization or 'Information Technology'.

- https://www.usajobs.gov/
- https://www.cybercareers.gov/

<u>State:</u> Common state search boards below. Less commonly classified as 'cyber' you will still find many related jobs under 'Information Technology' categorizations.

- Maryland https://jobapscloud.com/MD/
- Virginia https://virginiajobs.peopleadmin.com/
- Georgia http://team.georgia.gov/careers/
- Texas https://www.twc.texas.gov/jobseekers/job-search





Municipal:

<u>Municipal Government:</u> Typically reserved for larger population areas, they will often have own job postings separate from state or included in state job boards depending on classification.

<u>Tech Hubs:</u> There are many 'hot' municipalities that have growing industries for cyber jobs. These are typically growing due to either a large technology company presence or key federal growth. Areas to consider:

- Maryland Heavy presence of government, military, and commercial presence combine to make an ideal job search region
- <u>Augusta, GA</u> Home to Army Cyber Command and the Cyber Center of Excellence. High growth environment in surrounding region with contractor positions.
- Austin, TX Home to Army Futures Command, has a very large tech presence, academic research and government.
- <u>Denver, CO</u> Explosive growth in many tech startups and established players (Facebook, Google, Apple, etc.)
- Salt Lake City, UT Big data hub. Many expanding bay area companies are moving here.
- <u>The Triangle</u> Raliegh, Chapel Hill, Durham, NC. The triangle is a heavy research region which has major institutional efforts and close ties to DC and defense industrial base.
- <u>Colorado Springs, CO</u> Heavy military region with Ft. Carson, Peterson AFB and many defense contractors supporting NORTHCOM efforts.
- San Antonio, TX Home to Air Force Cyber Command, low cost of living and heavy tech and military presence make an ideal location.



Government Contractors:

It is nearly impossible to know all the government contractors. One thing that assists with searching for contract jobs is to look for the annual top government contracts as a starting place to learn about the companies and then peruse their job listings:

Top 100 Federal Contractors FY19 – Defense Security Monitor (forecastinternational.com)

Boeing, Lockheed, Mantech, General Dynamics, Raytheon, Booz Allen are all excellent corporations to find cyber careers. An additional benefit of looking at large government contractors is that they often have presences spread across the US presenting opportunities for inter-corporation transfers and growth opportunities.

Many of these contracts are not strictly defense department. These agencies typically support the whole of government at both federal and state levels which provide further networking or location opportunities.





Healthcare:

Similar to government contractors, healthcare is another one where it is hard to know what is out there. One method is to search based on zip code using medicare.gov for providers in your target area. Typically you will want to focus on hospitals and larger institutions, but opportunities do arise in the others:

https://www.medicare.gov/care-compare/

In addition to local healthcare systems, the top providers in the US provide excellent national search databases for their jobs. Using a annual ranking list helps you target the largest providers which will provide many results for national locations:

https://www.beckershospitalreview.com/largest-hospitals-and-health-systems-in-america-2019.html



National Job Search Boards:

- Indeed.com
- Higheredjobs.com
- Glassdoor.com
- Monster.com
- ZipRecruiter.com

There are many national job search boards. The more commonly recognized ones are above. They can be both a benefit and a distraction. A few strategies when using:

 Find a job you like – then go to the companies actual job posting page and apply. Many times indeed and others will direct you to this, other times you will be applying through indeed. Indeed and other boards typically provide companies with pre-screen solutions, meaning your resume has to check certain blocks to proceed.



DOD 8570 Certifications:

8570 Certifications are important for any government sponsored job, to include DoD and GS categories.

Additional Information can be found here.

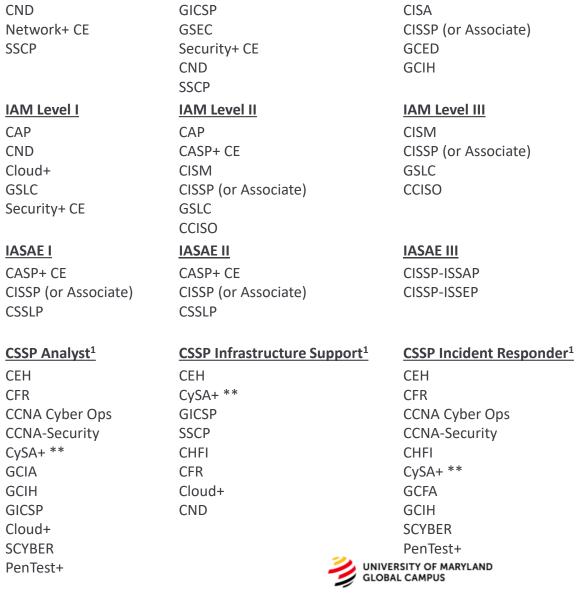


CSSP Auditor¹ CSSP Manager¹ CEH CISM CySA+ ** CISSP-ISSMP **CCISO** CISA **GSNA** CFR PenTest+

IAT Level I

CCNA-Security

A+ CE



IAT Level II

CvSA+ **

CCNA Security

IAT Level III

CCNP Security

CASP+ CE

Professional Certification Agencies:

EC-Council: Here (CEH, CCISO, ECIH, CHFI, Etc.)

GIAC: <u>Here</u> (GCIH, GSEC, GSE, Etc.)

Offensive Security: Here (OSCP, OSWP, OSEP, Etc.)

Microsoft: Here (Azure, Office 365, IPAA, Etc.)

ISACA: Here (CISA, CRISC, CISM, CGEIT, CSX-P or CDPSE)

Amazon: Here (AWS Cloud Practitioner, Security, Etc.)

Cisco: Here (CCNA, CCNP, CCNA-Security, CyberOps, Etc.)

Google: <u>Here</u> (Various focused on IT, Data, Cloud, Etc.)

ISC2: Here (CISSP, SSCP, CAP, Etc.)

COMPTIA: Here (A+, Net+, Sec+, CASP+, Etc.)

Common certification providers shown above. Many have direct support to DoD 8570 certifications.

My general thoughts: Get an intro networking, system administration, and security cert early to have baseline knowledge. Then grow from there based on your interest. Even if you are not planning to be a network engineer or server administrator, the intro certs give you the knowledge to be successful in many other career trajectories.





Competitions/Training Sites:

Competitions can be fun and valuable ways to gain experience. Many of them leave old "challenges" online for people to practice and learn. Most competitions revolve around Capture the Flag (Jeopardy), or Build, Defend, Attack models.

<u>https://ctftime.org/</u> is a primary resource for locating competitions worldwide.

Competition formats can vary wildly. Use the internet to find good starting ones. A beginner writeup Here on how to get started. Or https://ctf101.org/

Good strategies – Start with "always on" website based ones like <u>hackthebox.org</u>. Then search for challenge writeups (when you get stuck) to see how people have solved them in the past. Overall, this is great experience and lots of fun. Writeups for Hackthebox are <u>here</u>.



Resources:

Good Resources, No Particular Order:

Programming:

<u>Codecademy.com</u> (they generally do a good black Friday discount, students get even more. Roughly \$120/yr.)

Security Blogs:

Here is a good really good listing. I particularly like @Krebs, @DarkReading and @TaoSecurity

Books:

No Starch Press Great publisher of many security books. Lots of great kid ones too.

Syngress Many great cyber books.

OS:

<u>Kali</u> (good pen-testing OS)<u>Ubuntu</u> (The "easy" linux OS. Very similar toWindows or Apple OS)

Security Websites:

<u>Here</u> is one with list of common vulnerable sites. These are all sites to practice skills in safe environment.

