Lab - Cybersecurity Jobs Hunt (Instructor Version)

**Instructor Note**: Red font color or gray highlights indicate text that appears in the instructor copy only.

1. Objectives

Explore the career opportunities for cybersecurity professionals.

Explore the career requirements for cybersecurity professionals.

Part 1: Exploring Cybersecurity Jobs

Part 2: Cybersecurity Job Requirements

1. Background / Scenario

The cyber world is full of dangers and threats to individuals, organizations, and countries. These perils have resulted in a major demand for individuals with the knowledge, skills, credentials, and ethics to protect our people and systems. In this lab, you will explore the types of jobs available, job titles, job requirements, and credentials required by the cybersecurity industry. The Internet is full of job search websites that can provide you with information about careers in cybersecurity. Many of these websites are job search sites called job aggregators. This means that they collect job postings from many other sites and organizations. In part one, you will explore three of the world’s most popular job aggregator websites. In part two, you will discover the requirements of cybersecurity jobs.

URL: <http://burning-glass.com/infographic-geography-cybersecurity-jobs-2015/>

1. Required Resources

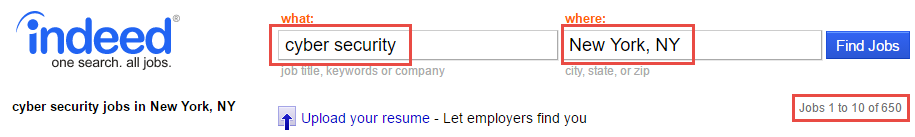
* PC or mobile device with Internet access

1. Exploring Cybersecurity Jobs

Indeed is one of the world’s largest job aggregators. Indeed helps millions of job seekers and employers find the right fit. The Indeed website posts a wide assortment of jobs from entry-level to top executives. Indeed also posts part-time jobs and internship opportunities.

* 1. Explore Cybersecurity Job Postings:

1. Open a browser and view the following video: “[How to search for jobs with Indeed.com](https://youtu.be/9gqsnA2Lk-0)” [(https://youtu.be/9gqsnA2Lk-0]((https:/youtu.be/9gqsnA2Lk-0))
2. Click [here](http://www.indeed.com/) or got to <http://www.indeed.com/> to perform a job search. Start by looking for all jobs in New York City, USA. Use the phrase **cyber security** for the first search. Record the number of job found.



\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The number of jobs will be listed at the top right hand corner and will vary for every search.

1. Do the same search but use the phrase **information security**. Record the number of jobs found. Did you find more or less job postings? Why?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The number of jobs will be listed at the top right hand corner and will vary for every search. Different phrases will match to different job titles listed in the Indeed database. It is good practice to try different titles. Information security is a more common job title for individuals that work in the cybersecurity profession.

1. Repeat these steps using the phrase **network security** for the third search. Record the number of jobs found. Did you find more or less job postings? Why?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Different phrases will match to different job titles listed in the Indeed database. Network security is a subset of information security, therefore you should find less jobs. The point is that your search criteria can make a big difference in your results.

* 1. Explore Cybersecurity Salaries.

1. Repeat the first job search by looking for all jobs in New York City, USA. Use the phrase **cyber securit**y. Pick three jobs that interest you. Record the experience required and salaries offered.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answers will vary. Have students compare the salary levels versus experience level. In most cases, a direct correlation exists.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The Indeed website also advertises internships and part-time jobs. Use the **advanced job search** option to find all **IT Security** internship opportunities in New York City. How many did you find? List a few of the titles.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The answers will vary, but the student should find at least three job listings. Discuss the value of paid and unpaid internships.

1. Use the **advanced job search** option to find all **IT Security,** part-time opportunities in New York City. How many did you find? List a few of the titles.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The answers will vary but the student should find at least three part-time job listings. Discuss the value of part-time jobs.

1. Cybersecurity Job Requirements

The cybersecurity field requires individuals with a high level of skill and knowledge. Many organizations require both academic and industry credentials to demonstrate the attainment of this knowledge and skill. Two very popular job search websites are CareerBuilder.com and USAJobs.gov. The websites list hundreds of cybersecurity related jobs.

* 1. Explore Careerbuilder.
     1. Open a browser and view the following video: [CareerBuilder: Twenty Years, One Solution](https://www.youtube.com/watch?v=FVXCnqKVFKs). (<https://youtu.be/FVXCnqKVFKs>)
     2. Click [here](http://www.careerbuilder.com/) or go to <http://www.careerbuilder.com> to perform a job search at CareerBuilder.com. Start by looking for all jobs in San Francisco, California, USA. Use the phrase **network security** for the first search. Record the number of jobs found.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The number of jobs can be found on the second line with the **job search title** at the end of the sentence in parenthesis.

* + 1. Select two jobs that list a salary. What is the salary range listed?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The answers will vary.

Have the students share their findings. Discuss the difference between starting salaries and a salary for an experienced cyber security professional.

* + 1. Open the two jobs you used in the previous step. What credentials were required (academic degrees and certificates)? Did the organization require industry certifications? Please list the academic and industry credentials required.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answers will vary.

Have the students share their findings. Discuss the different types of degrees and industry certifications.

* 1. Explore USA Government Jobs.
     1. The federal government has been the target of many high profile cyberattacks. As a result, many federal agencies need cybersecurity professionals. Click [here](https://www.youtube.com/watch?v=f3vRr3Lq-zI) or go to <https://youtu.be/f3vRr3Lq-zI> to view a video about USAjobs.gov. Click [here](https://www.usajobs.gov/) or go to <https://www.usajobs.gov> to visit the USAJOBS website. Search **Information Security** as the Job Title. How many jobs did you find?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answers can be found just below the “Keyword” search box.

* + 1. Scroll through the first page of job listings. Count the number of federal agencies listings jobs on the first page.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Search the first page. The answers are located under Department and Agency.

* + 1. List three of the salaries posted on the first page.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Search the first page. Have the students share their findings. Discuss the difference between the different federal agencies.