

Lakeland

COMMUNITY COLLEGE

INFORMATION TECHNOLOGY
AND COMPUTER SCIENCE

CAREER SKILLS FOR

Cybersecurity Specialist/ Technician or Cyber Defense Analyst



ADDITIONAL RESOURCES

National Initiative for Cybersecurity
Careers and Studies
niccs.cisa.gov

FOR MORE INFORMATION CONTACT:

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 Opportunity
starts **HERE**
lakelandcc.edu

Cybersecurity specialist/technicians and Cyber defense analysts use data collected from a variety of cyber defense tools to analyze events that occur within their environments for the purposes of mitigating threats (NICE Framework PR-CDA-001).

JOB-SPECIFIC SKILLS

Skills and knowledge you will obtain at Lakeland to prepare for a successful career in the field.



HARDWARE/SOFTWARE SKILLS:

- Detect host and network-based intrusion via intrusion detection technologies
- Determine how a security system should work and how changes in conditions, operations, or the environment will affect these outcomes
- Evaluate the adequacy of security designs
- Use incident handling methodologies
- Use protocol analyzers
- Collect data from a variety of cyber defense resources
- Recognize and categorize types of vulnerabilities and associated attacks
- Assess security controls based on cybersecurity principles and tenets
- Perform packet-level analysis
- Recognize vulnerabilities in security
- Conduct trend analysis systems
- Apply cybersecurity and privacy principles
- Use cyber defense service provider reporting structure and processes within ones' own organization to organizational requirements

PROGRAMMING SKILLS:

- Systems analysis and design
- Use logic and problem-solving
- Basic programming skills

GENERAL MANAGEMENT SKILLS:

- Capacity planning for growth and changes
- Decision making
- Leadership
- Presentation preparation
- Project management
- Set-up and maintenance of documentation and standards
- Understand core business functions and how information technology interrelates with business

See NICE framework for additional details:
<https://niccs.cisa.gov/workforce-development/cyber-security-workforce-framework/cyber-defense-analysis>

TRANSFERABLE SKILLS

Skills you have acquired throughout your life that will help you excel in the field include:

- Ability to multitask
- Leadership
- Logical thinking
- Organizational proficiency
- Penchant for learning
- Problem-solving
- Verbal and written communication



PERSONAL ATTRIBUTES

These nontechnical attributes will enable you to be a competent, reliable employee in any company.

- Accurate
- Adaptable
- Analytical
- Collaborative
- Creative
- Critical thinker
- Customer-focused
- Deadline-oriented
- Detail-oriented
- Demonstrate initiative
- Efficient
- Ethical
- Flexible
- Honest
- Independent
- Investigative
- Logical
- Organized
- Patient
- Personable
- Problem solver
- Professional presence
- Questioning
- Quick learner
- Respectful
- Self-motivated



RELATED JOB TITLES

Note: This is only a representative list and does not exhaust all possible titles in the field.

- Cybersecurity Specialist/ Technician
- Cyber Defense Analysis
- Cybersecurity Engineer
- Cybersecurity Analyst
- Cybersecurity Consultant
- Cybersecurity Manager/Administrator
- Vulnerability Analyst/Penetration tester
- Network Engineer/Architect
- Systems Engineer/Software Developer/Engineer

**Some positions may require a bachelor's degree or higher.*

POSSIBLE EMPLOYERS

Note: This is only a representative list and does not exhaust all types of employers.

- Banks and financial institutions
- Consulting companies
- Education
- Government agencies
- Health care
- Insurance companies
- Manufacturing
- Nonprofit organizations
- Public accounting
- Real estate
- Research
- Retail
- Self-employment
- Service
- Technology
- Wholesale

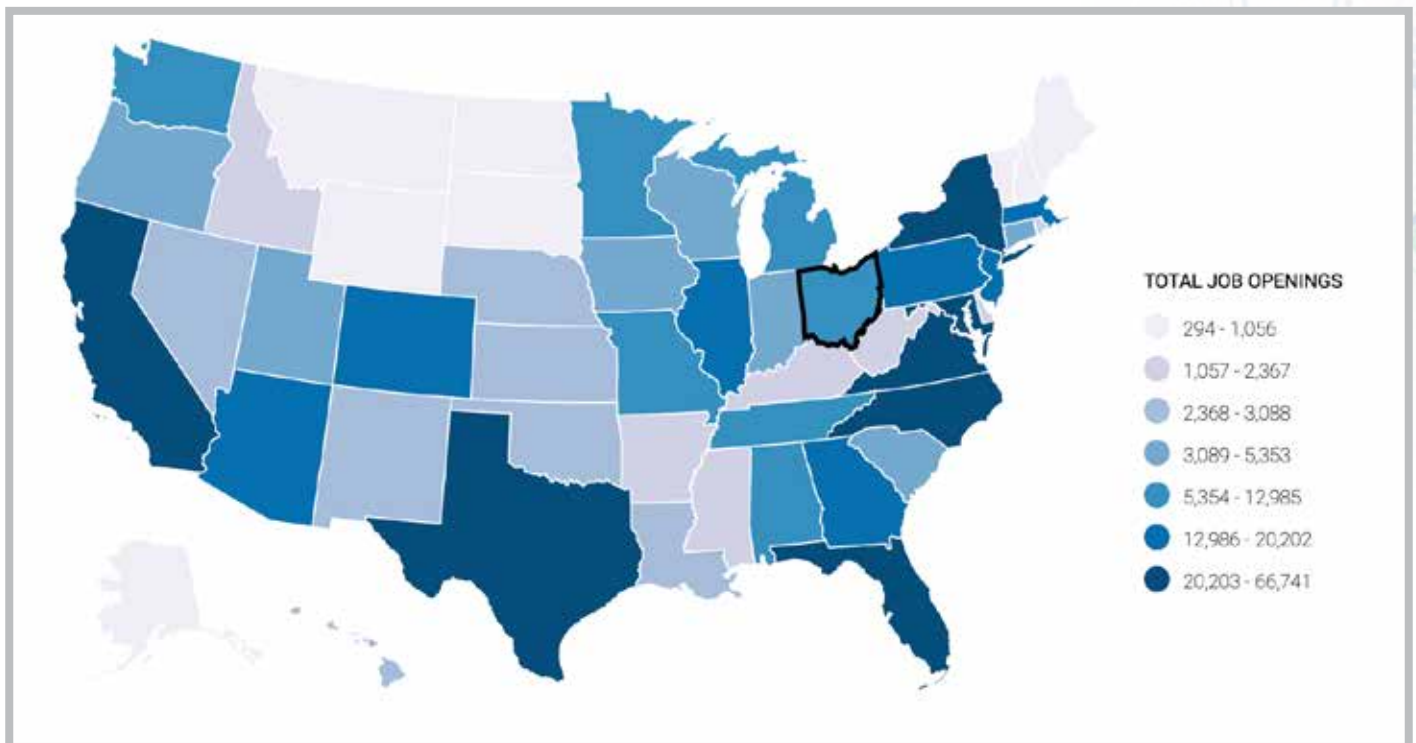


QUICK FACTS

Network and Computer Systems Administrators (national averages)

2020 Median Pay	\$103,590 per year/\$49.80 per hour
Typical Entry-Level Education	Bachelor's degree
Work Experience in a Related Occupation	Less than 5 years
On-the-job Training	None
Number of Jobs, 2019	131,000
Job Outlook, 2019-29	31% (Much faster than average)
Employment Change, 2019-29	40,900

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Information Security Analysts, at <https://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm> (visited April 14, 2021).



Source: <https://www.cyberseek.org/heatmap.html>