



Cybersecurity

Information Technology (IT)

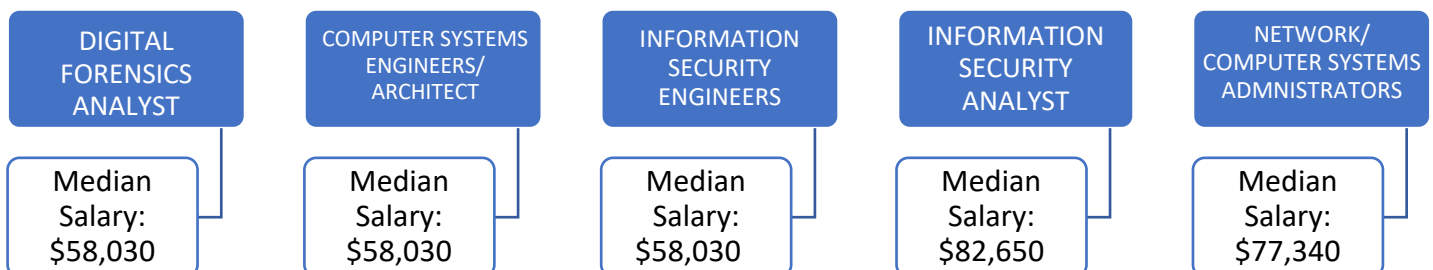
JOB OUTLOOK

According to cyberseek.org (2020), “Cybersecurity talent gaps exist across the country. From October 2018 through September 2019, there were 270,000 openings for Information Security Analysts, but only 112,000 workers currently employed in those positions – an annual talent shortfall of 158,000 workers for cybersecurity’s largest job. There are 235,000 additional openings requesting cybersecurity-related skills, and employers are struggling to find workers who possess them. As a result, the average cybersecurity role takes 20% longer to fill than other IT jobs.



OCCUPATION PROFILE

Network outages, data compromised by hackers, computer viruses and other incidents affect our lives in ways that range from inconvenient to life-threatening. As the number of mobile users, digital applications and data networks increase, so do the opportunities for exploitation. Governments, military, corporations, financial institutions, hospitals, and other businesses collect, process and store a great deal of confidential information on computers and transmit that data across networks to other computers. With the growing volume and sophistication of cyber-attacks, ongoing attention is required to protect sensitive business and personal information and safeguard national security.



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Memphis-Shelby County Schools



ROAD MAP TO SUCCESS

PROGRAM OF STUDY PROFILE

Cybersecurity program of study is designed for students interested in protecting computers, networks, programs, and data from unintended or unauthorized access, change, or destruction. Cybersecurity will enable students to acquire the skills to develop and preserve network security. The content includes foundational knowledge and skills to monitor and track hackers or cyber criminals with the intention to breach a network, software, or application security.

Students will be able to develop foundational skills in penetrating testing, ethical hacking, coding, cryptography, and digital forensics.

CAREER PATHWAY

SECONDARY EDUCATION

- * Computer Science Foundations
- * Cybersecurity I
- * Cybersecurity II
- * Cybersecurity Practicum

CERTIFICATIONS

- * Information Security Technical

ASSOCIATES

- * A.A.S. Computer Info Systems: Cyber Defense

BACHELORS

- * B.S. Computer Science: Cybersecurity

MSCS PARTICIPATING SCHOOLS: Germantown HS & Hamilton HS

DUAL ENROLLMENT: Beginning HTML – Germantown HS, Hamilton HS + Southwest Tennessee Community College & Intro to Programming – Hamilton HS + Southwest Tennessee Community College

LOCAL EMPLOYERS: CBRE, City of Memphis, Deloitte, FedEx Services, FLEX, Memphis-Shelby County Schools, MLGW, Orgill, Securitas, Terminix, and Unistar-Sparco