Computer Science, Information Technology, Security and Digital Media

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Stark State
COLLEGE

Computer Science, Information Technology, Security and Digital Media

Do you thrive on change and learning the newest technology and techniques?

Programs in this community lead to careers in computer engineering, computer graphics, computer network administration, computer programming, computer science and engineering technology, computer technology, cyber security, digital video and media, music production, video game design, web design and transfer programs in these fields.

Find out more.

Identify and **explore** your unique Holland code.

Schedule a career exploration appointment with a Stark State career specialist.

call	330-966-5459
email	careerservices@starkstate.edu
stop in	main campus - M104
	SSC Akron - Gateway Student Services
or	hover your camera over this QR code and tap the link

Consider these and other careers

job title/description	Entry-level annual wage	Canton average annual wage	Akron average annual wage
computer network support specialist ☼ expand, analyze, test, troubleshoot, and evaluate existing enterprise network systems and internet systems or a segment of a network system. Perform network maintenance to ensure networks operate correctly with minimal interruption	38,200	54,400	70,600
computer support specialist ☼ provide technical assistance to computer users. Answer questions or resolve computer problems for clients in person, or via telephone or electronically. May provide assistance concerning the use of computer hardware and software, including printing, installation, electronic mail, and operating systems	31,400	47,000	55,700
graphic designer * ☼ design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects	33,600	47,600	52,400
information security analysts * ☼ plan, implement, upgrade or monitor security measures for the protection of computer networks and information. May ensure appropriate security controls are in place that will safeguard digital files and vital electrotonic infrastructure. May respond to computer security breaches and viruses	51,700	78,300	85,300
software developer * ☼ research, design, and develop computer and network software or specialized utility programs. Analyze user needs and develop software solutions, applying principles and techniques of computer science, engineering, and mathematical analysis. Update software or enhance existing software capabilities. May work with computer hardware engineers to integrate hardware and software systems, and develop specifications and performance requirements. May maintain databases within an application area, working individually or coordinating database development as part of a team	56,100	82,600	90,800
web developer ☼ design, create, and modify websites. Analyze user needs to implement website content, graphics, performance and capacity; may integrate websites with other computer applications; may convert written, graphic, audio and video components to compatible web formats	28,000	59,900	57,200

☼ = high-demand, good-paying occupation: at least 1,000 job openings projected over 10-years (2022-2032) in the northeast Ohio region (9 counties in Akron, Canton and Cleveland MSA's) and jobs pay at least $15/hour

* may require further education; an advisor will help you determine your pathway

source: JobsEQ® 2020

Critical skills and abilities

- complex problem solving
- critical thinking
- problem sensitivity
- reading comprehension
- written communication

Technical skills and knowledge

- computers and electronics
- engineering and technology
- mathematics
- operating system software

Short-term certificates in this Career Community

- A+
- C++ programming
- Cisco Technology
- computer maintenance and desktop support technician certificate
- computer science
- CySA+
- data analytics
- database systems
- digital photography
- geographic information systems – geospatial technology professional
- geographic information systems specialist
- graphic design
- help desk and computer user support
- Java programming
- Microsoft Networking
- Microsoft SQL server
- mobile development
- music production
- Oracle database
- Security +
- video game design
- web design

Some local employers with jobs in this Career Community

City of Akron

City of Canton

Fastenal

FortisureIT

Kenan Advantage Group

National Interstate Insurance

Patriot Software

Signet Jewelers

Union Home Mortgage

Visual Edge IT

Majors in this Career Community

EXPLORATORY MAJOR

If you know this career community is the right fit for you but you're unsure of your major, choose the **computer science, information technology, security and digital media exploratory major** to get started in the right direction. Your first 15 credit hours are applicable to all majors within this career community and you'll get the experience to know which major is right for you.

COMPUTER SCIENCE

COMPUTER ENGINEERING

You'll learn both hardware and software along with design and integration. Write embedded software; work with analog sensors; and design chips, mixed signal circuit boards and operating systems. This degree is accepted by the University of Toledo for the first part of a bachelor's degree.

COMPUTER NETWORK ADMINISTRATION AND SECURITY TECHNOLOGY

You'll cover the bases, from basic PC hardware and software to the latest network operating systems, while learning Cisco, Microsoft and Unix-based operating systems along the way. This multi-platform degree is accepted by The University of Akron for the first part of a bachelor's degree in computer networking.

COMPUTER PROGRAMMING AND DATABASE

Combine database management systems with computer software to organize and store data. You'll ensure the system performs, understand its platform and add new users along with planning and coordinating security measures for sensitive data.

Geographic information systems major

GIS mapping analysis is needed in almost every field imaginable, from performing database administration for an environmental firm to potentially building 3D models for a planning company. Organizations of all types need professionals skilled in GIS. Come learn the tools used in making critical spatial decisions.

COMPUTER SCIENCE AND ENGINEERING TECHNOLOGY

Go behind the scenes, applying creativity to high-tech fun. Operate, describe and design state-of-the-art software systems.

Mobile application development major

Demand for mobile apps is skyrocketing, along with the need for developers. You'll become fluent in modern programming languages as you code, test, debug, monitor and document changes for mobile apps and implement application programming interfaces to upgrade applications.

Video game design and development major

Create computer and video games – whether specializing in Xbox, Wii or PlayStation or for a variety of other systems including PCs. You can specialize in role-playing games or first-person games, porting games from one system to another or translating games into other languages.

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COMPUTER TECHNOLOGY

Learn how to solve business problems using information technology tools such as computer hardware, operating systems, networking, programming and database management systems. You'll apply the tools as part of distributed information systems, system analysis, system design and decision support systems.

Help desk/computer support specialist major

There's been explosive growth in the technology help desk/technical support arena, and this major lets you take part at any level. As difficulty gradually unfolds in a series of stepwise courses, you'll be prepared to work with customers and technology in a professional environment.

CYBER SECURITY AND COMPUTER FORENSICS TECHNOLOGY

Assess a company's security risk in its systems, document and implement security procedures and check for security breaches. Jobs can be found in both the private and public sectors, including those related to digital forensics.

WEB DESIGN AND DEVELOPMENT

You'll get state-of-the-art training in the exciting and lucrative field of Web design and programming. You'll focus on creating the backbone of a website with the latest techniques such as CSS, AJAX and more, learning to develop interactive, database-driven websites using ASP.net, PHP, SQL, JavaScript, AJAX and MySQL.

DIGITAL MEDIA

3D MOTION GRAPHICS TECHNOLOGY

Walk on the creative side of interactive media technology when you learn to communicate through 3D graphics and animation. You'll be able to take your skills into a career in health care, manufacturing, gaming, marketing, advertising or entertainment.

COMPUTER GRAPHIC ARTS

Enter into the exciting digital world of graphic design for a creative career in advertising, print or web media.

Digital photography major

Get skilled in using the latest digital cameras and learn about lighting, lenses and exposure along with photo manipulation. You'll be prepared for a career as a photojournalist, studio manager, photographic editor or commercial photographer.

DIGITAL VIDEO MEDIA TECHNOLOGY

Bring your ideas to the big screen, from concept to digital. You'll focus on camera work, digital editing and special effects while shooting, editing and mastering quality productions. Jobs can be found at multimedia firms, creating educational, commercial or industrial videos.

MUSIC PRODUCTION AND ENGINEERING

The technology of sound design has never sounded so good as you learn the skills and concepts of recording, musicianship and music arranging with the goal of employment in corporate audio, audio reinforcement, trade show design, music composition or performance-based fields.

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North Canton, OH 44720**

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Career Services
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