



Career Community:

Computer Science,
Information Technology,
Security and Digital Media

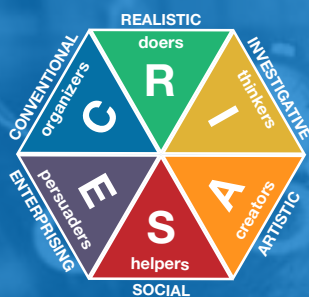


starkstate.edu/academics



Career Community:
**Computer
 Science,
 Information
 Technology,
 Security and
 Digital Media**

Holland Code matches your interests to your ideal career and work environment.



Find out more. Make an appointment with Career Services to discover your code and what it means for your future.

call 330-966-5459
 email careerservices@starkstate.edu
 stop in main campus - M104
 SSC Akron - Gateway Student Services

Enjoy being creative with accuracy and precision?

Like being presented with a technical problem and troubleshooting to find the solution?

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.

Consider these and other careers

job title/description	Entry-level annual wage	Canton average annual wage	Akron average annual wage
computer support specialist * provide technical assistance to computer users; answer questions or resolve computer problems for clients in person, via telephone or electronically; may provide assistance concerning the use of computer hardware and software, including printing, installation, word processing, electronic mail and operating systems	31,500	45,400	49,000
geographic information systems technician * create visual concepts using computer software or by hand to communicate ideas that inspire, inform and captivate consumers	33,400	59,900	78,700
graphic designer * assist scientists, technologists or related professionals in building, maintaining, modifying or using geographic information systems (GIS) databases; may also perform some custom application development or provide user support.	28,000	43,900	47,400
software applications developer * develop, create and modify general computer applications software or specialized utility programs; develop software solutions for user needs; design or customize software for clients' operational efficiency; may analyze and design databases within an application area, individually or as part of a team; may supervise computer programmers	51,100	89,300	82,500
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	31,700	44,000	68,400

* = high-demand, good-paying occupation: at least 1,000 job openings projected through 2028 in the Northeast Ohio region (10 counties in Akron, Canton and Cleveland MSAs); jobs pay \$15/hour or more

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

sources: high demand from 2018.2 QCEW employees; all other fields Bureau of Labor Statistics 2018 from JobsEQ

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

- C++ programming
- computer maintenance and desktop support technician certificate
- computer science
- 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 SQL server
- mobile development
- music production
- Oracle database
- video game design
- web design

Some local employers with jobs in this Career Community

Akron Children's Hospital
BWX Technologies
Cleveland Clinic
Diebold Nixdorf
DRB Systems
GOJO
InfoCision
Patriot Software
Spectrum
The J.M. Smucker Company
The Timken Company

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.

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 homeland security.

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 AND 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.



Stark State
COLLEGE

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North Canton, OH 44720

Admissions

330-494-6170 ext. 4228 | 1-800-797-8275 | info@starkstate.edu

Career Services

330-966-5459 | careerservices@starkstate.edu

Some careers represented in this viewbook may require further education. The information provided is based on regional data and subject to change. Please see an SSC advisor to make sure you're on the path to success. / Accredited by the Higher Learning Commission / Stark State College is committed to non-discrimination. For the full policy: starkstate.edu/non-discrimination