

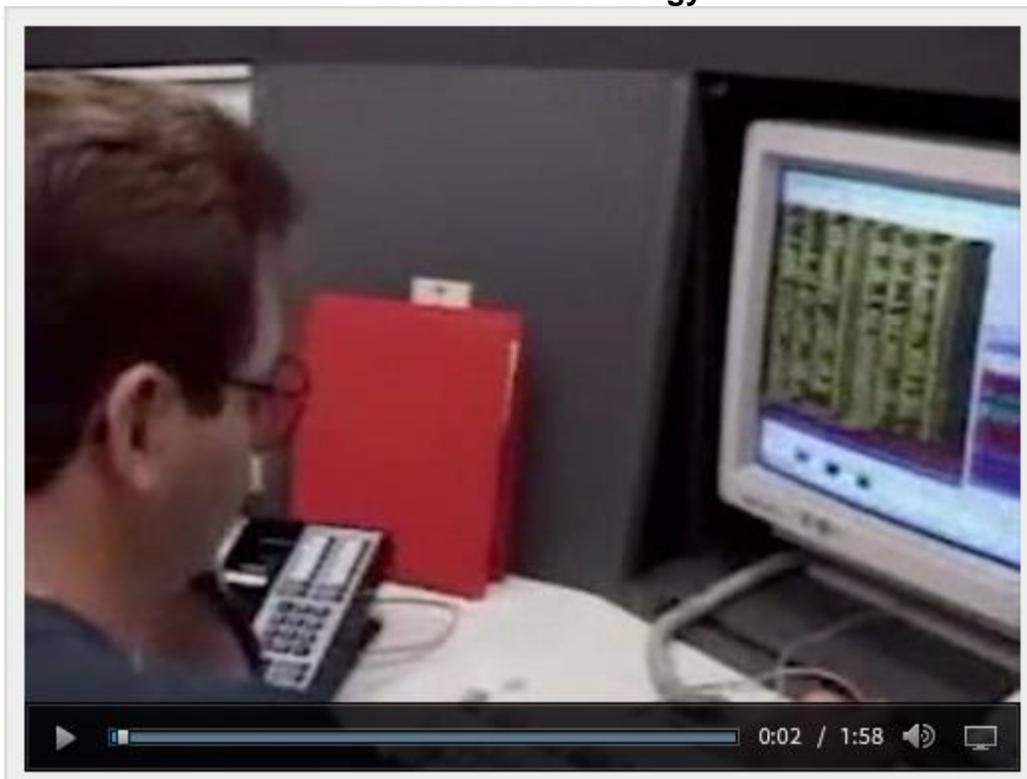
Computing Careers

[Information Technology Careers](#) | [Professional Organizations & Certification](#) | [Game Design Industry](#) | [Review](#)

Information Technology Careers

Information Technology (IT) is an area that is growing and always changing with new developments. In IT, you would be part of a cluster that continues to make an impact on society and individuals. You would have the opportunity to work in all types and sizes of businesses from Microsoft to your local hospital. Employees in Information Technology work with computer hardware, software, multimedia, and network systems. In this cluster, you might design new computer equipment or computer games. Or you might make sure that the software or networks are working. In addition, you might have to make sure that people know how to use them. Or you might manage whole networks that link workers in all parts of the world. *Georgia Career Information Center - Georgia State University.*

Information Technology



[Click on the picture to watch the video](#)

Several jobs today utilize computers to capture, calculate, and store data. When you think about a job that uses multimedia, what comes to mind? Movie maker? Marketing Executive? Teacher? You might be surprised at how wide and varied the field is for using these skills. Technology is one of the most pervasive forces in our society today. We use technology both to connect and detach, to save time and to waste it. We are especially dependent on those who make their living by creating, powering and supporting our electronics and information systems. Employment numbers are already high within the technology industry, but it is expected to be one of the fastest-growing fields between 2012 and 2022 according to *U.S. News*.

The top Information Technology (IT) jobs are:

- Software Developer
- Computer Systems Analyst
- Web Developer
- Information Security Analyst
- Database Administrator

The Information Technology Industry is made up of companies involved in the development, production, sales, and support of computers and software and it overseen by the Federal Communications Commission. The IT industry includes companies that manufacture handheld and personal computers, servers, mainframes, and supercomputers. There are several types of jobs available in information technology. A computer professional is any person whose primary occupation involves one or more aspects of computer technology. Most computer professionals work in an Information Technology Department where they are responsible for a company's computers, data, software, and support services.



There are some professionals who work outside the Information Technology Department in computer hardware and software companies. Some computer professionals are contract workers. A contract worker is a computer professional who does not work directly for one company and often is paid by the job instead of a salary. In addition, some IT assignments are outsourced to independent contractors to perform specific tasks. For example, an IT security audit may be outsourced, or the development of a new company intranet may be outsourced.

Assignment: Question for Thought 1

Directions: Look around you at people working at various jobs. How do the jobs that you see use the computer to complete their job responsibilities? How do you think the computer has changed these jobs? Explore the impact of digital technology on non-traditional technology fields. How has the field changed for the better? How has the field

gotten harder? Describe 5 jobs that are not specifically in the Information Technology career field. Your response should be about 250 words. Please type your summary directly in the textbox below. Do not attach a separate document and be sure to proofread.

Assignment: Question for Thought 2

Directions: Many women have made great contributions to computer science however; you do not hear much about their contributions. Using the resources provided in this presentation and the Internet, provide a response on a woman who has made a contribution in computer science. Your response should include the name of the female and provide details about her contribution. Your response should be about 150 words. Please type your summary directly in the textbox below. Do not attach a separate document and be sure to proofread.

Professional Organizations & Certification

Education

Most IT jobs require a college degree. The level of college education varies depending on the role, responsibilities, and job title of the position. Some professional positions only require an associates degree (2 year), while others require a bachelor or higher degree.

Professional Organizations

"It's not what you know, it's who you know. Techies ignore this adage at their peril. Even in the skills-crazed world of database administrators and PHP programmers, networking matters, no doubt about it. One surefire way to connect with others -- and advance your career -- is by joining technology organizations." *Allan Hoffman, Monster Tech Jobs Expert*

Professional Organizations are a great resource for professionals. They often provide an abundance of leadership development and professional development as well as assistance for others in the profession. For example, the **Association of Information Technology Professionals** (AITP) seeks to advance the IT profession through professional development, support of IT education, and national policies on IT that improve society as a whole. The **Association of Women in Computing** (AWC) emphasizes professional growth through networking and career-oriented events, all in an effort to advance the role of women in computing. Local chapters offer guest speakers, technical and motivational seminars, and educational programs.

Find out more of the [Top IT Organizations](#) by *Allan Hoffman, Monster Tech Jobs Expert*.

Certification

Getting certified is a surefire way to advance your career in the IT industry. Some companies and positions require certification. For example, computer hardware technicians are often required to have A+ certification. Whether you work for an enterprise, a small business, government, healthcare or any other place that employs IT professionals, your best bet for career advancement is to validate your skills and knowledge through a carefully chosen combination of certification credentials. *Ed Tittel, Best IT Certifications for 2014*

There are *many* different areas of IT certification, known as 'certs' for IT professionals:

- Cloud IT
- Mobility
- Big Data
- IT Trainer
- Healthcare IT
- Virtualization
- Telecommunications
- Wireless Networking
- Computer Hardware
- Help Desk
- Project Management
- Database
- Linux
- Computer Forensics
- Governance
- Enterprise Architect
- System Administrator
- Computer Networking
- Information Security
- Programming
- Storage
- Web



Read Ed Tittel's full article, [Best IT Certifications for 2014](#) and take a look at several of the certifications that might be of interest to you.

Assignment: Question for Thought 3

Directions: Select two professional organizations (other than the two mentioned in the lesson) to summarize. Your summary should be about 100 words per organization. Select one cert from three different areas to summarize. Your summary should be about 100 words per 'cert'. Post your summary directly in the itsLearning textbox. Do not attach a separate document and be sure to proofread.

Assignment: Careers Worksheet

Directions: Complete the Career Worksheet in itsLearning.

Assignment: Computer Job Search Project

Directions: Find a computer-related job that you would desire if you were interested in pursuing a career in the computer industry. Using word processing software (such as Microsoft Word), prepare a report. Reports should be typed, Times New Roman, double space, no bigger than 12 pt font, use paragraphs with proper spelling and grammar. MLA format. The full assignment details are in itsLearning.

Game Design Industry



Since the early days of video games, young gamers have whispered secrets on the schoolyard and spent long hours trying to make the most outrageous gaming myths come true. Video game design is the video game development process of designing the content and rules of a video game in the pre-production stage and design of gameplay, environment, storyline, and characters during production stage. The designer of a game is very much like the director of a film; the designer is the visionary of the game and controls the artistic and technical elements of the game in fulfillment of their

vision.

A game designer is a person who designs gameplay, conceiving and designing the rules and structure of a game. Many designers start their career in testing departments, where mistakes by others can be seen first-hand. Roles in game design include:

- Lead Designer
- Game Mechanics Designer or Systems Designer
- Level Designer or Environment Designer
- Writer



Video game designers need a variety of skills and innate abilities. The skills largely involve training in computer graphics, animation and software design. In 2013, a game designer with less than 3 years of experience earned, on average, \$55,000. A game designer with more than 6 years of experience made, on average, \$105,000. The need for video game designers and related careers are expected to grow in coming years as consumer demand for such products increase. The U.S. Department of Labor foresees a 32 percent increase in software publishing jobs in the next five years. Read more about Game Design in [Gamers Have Georgia on Their Mind](#) by Ron Starner.

Hear from Mark Ogilvie, to find out what it's like to work as a Design Director for RuneScape.

Most 12-year-olds love playing videogames — Thomas Suarez taught himself how to create them. After developing iPhone apps like "Bustin Jeiber," a whack-a-mole game, he is now using his skills to help other kids become developers.



[Click on the picture to watch the video](#)

Assignment: Video Game Project

Directions: Select your favorite computer or video game to research and put together a presentation about. Download the project from itsLearning.

Review

Resources

If you are having problems viewing this page, opening videos, or accessing the URLs, the direct links are posted below. All assignments are submitted in itsLearning. If you have having problems, contact Mrs. Rush through the itsLearning email client.

Information Technology Career Cluster

video:<http://www.gcic.peachnet.edu/Content/HelpYourself/ClusterVideos.aspx?vid=Eng/00-000011>

How to Make Games Episode One: <http://www.youtube.com/watch?v=T5gcokw-Rtg#t=18>

How to Make Games Episode Two: <http://www.youtube.com/watch?v=VUYalmQvY6w>

Working in Games: Designer Director: http://www.youtube.com/watch?v=KvnRQEO_350

A 12-year-old app developer:

http://www.ted.com/talks/thomas_suarez_a_12_year_old_app_developer

Review: <https://www.examtime.com/en-US/p/1013539>

Transcript: <http://mrsrush.net/careers/index.pdf>

Credits

Treasure Chest icon: <http://www.diveandgo.com>

Mario icon: <http://www.diveandgo.com>

IT Professionals photo: Microsoft Word

[Transcript of this lesson](#)