



Do you want to help build the next generation of mobile phones, tiny media players, and even high-tech clothing? Or create new and more advanced medical tools? That's **Computer Engineering.**



Learn to design digital hardware and software including communications systems, computers, and devices such as phones, MP3 players, DVRs, alarm systems, x-ray machines, and even laser surgical tools.



Do you enjoy finding better ways to get things done using computers? Are you interested in understanding how computers can make businesses work better? That's **Information Systems.**



Design the next eBay auction site or iTunes music store! Business and computing overlap in major ways and you might be the next successful entrepreneur.



Do you love to solve puzzles? Invent new ways of using computers? Or exchange theories about new ideas? That's **Computer Science.**



Design and build software, or solve real-world problems using robotics, computer-enhanced vision, digital forensics, and other innovations.



Do you help other people fix their computers or design their web sites? Are you the troubleshooter everyone turns to when their computer acts weird? That's **Information Technology.**



Support, troubleshoot and design technology. Businesses, government, schools, health care, and other organizations all need IT specialists.



Do you see the big picture? Can you imagine whole new virtual worlds and experiences? That's **Software Engineering.**



Develop computer games or software systems for safety-critical applications. Software applications are made up of many smaller programs carefully stacked together.



<http://csta.acm.org>

# IMAGINE ▶ YOUR FUTURE in COMPUTING



From **entertainment** and **communication** to **conquering disease** or **eliminating hunger**—computer technologies provide **solutions to make life better.**

A high-tech world calls for **inspired and talented people.** Jobs in technology are growing and offer **big salaries.** Technological advances are creating **new jobs every day!**

**Explore** your interests in computing. Your high school may have classes and clubs. Talk with your guidance counselor and your school's computing or technology teachers to learn more about the **opportunities** ahead.

For more information visit  
<http://computingcareers.acm.org>

## Medicine

- ▶ **design** the imaging hardware.
- ▶ **write** algorithms (mathematical steps) that let computers process images from electrical impulses.
- ▶ **write** software and make sure it is foolproof.
- ▶ **develop** systems for delivering images so doctors can diagnose a patient's condition quickly.



In just a few years, doctors will be able to operate on patients half a world away using remote cameras and robotic arms. Computing professionals will continue to push the boundaries of medicine.

## Finding Info on the web

- ▶ **invent** the revolutionary approaches that make searching possible.
- ▶ **develop** the products that dig up results.
- ▶ **design** ways for search companies to sell targeted advertising.
- ▶ **create** high-performance networks to process huge quantities of data.



Search technology has a long way to go, and it will take many computing experts to make that happen.

## connect

- ▶ **design** faster chips that use less power.
- ▶ **invent** ways to transmit information more quickly.
- ▶ **connect** people on the move with mobile devices.
- ▶ **develop** cutting-edge hardware and software.

## Mobile Devices

Think about life before the mobile phone. What new device will we say we "can't live without" in the next few years?

## play

## Gaming

- ▶ **produce** faster, more powerful chips that can display ever more lifelike characters in 3-dimensional worlds.
- ▶ **create** the artificial intelligence that makes each game challenging, keeping players coming back for more.
- ▶ **build** support networks that enable game development.
- ▶ **create** systems for keeping track of who is playing and how they are doing.



Imagine not only playing today's video games, but inventing them, too.

## Online Music and Movie Distribution

- ▶ **build** huge databases that store music, TV shows, and movies.
- ▶ **work** with artists to create attractive, engaging download sites.
- ▶ **design** the systems to help people find things they will like.
- ▶ **create** new portable media devices to play the music and download video.

The entertainment industry is being shaken up and the whole revolution is powered by technology and computing professionals.