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# Top 10 Computer Science Jobs

## Career Options for Computer Science Majors

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Updated on September 17, 2020

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Maybe you have always liked to solve problems or decipher codes. Perhaps you have a knack for learning new languages, or maybe you were so intrigued with your computer that you ripped off the cover and started to tinker with the inner workings. If so, [computer science](#) might be an ideal career choice for you.

Computer science majors need to be able to think [analytically](#) in order to devise systems and programs, but must also be sufficiently detail-oriented to troubleshoot problems. They must be able to communicate well with non-technical people to assess their needs and convey technical information in plain language.

[Creativity](#) is essential for those computer science majors who hope to come up with the latest app or technology gadget. Given the rapid rate of change within technology, computer science majors need to have a thirst for learning to keep up with the latest developments.

Computer science majors must also be curious about the world around them, since programs and systems apply to every possible area of life and commerce.

Given the pervasiveness of computer technology in today's society, there are many different job options open to the computer science major. The right job for you will depend on your personal skills, values, and interests.

## Software Developer

[Software developers](#) create software programs that allow users to perform specific tasks on various devices, such as computers or mobile devices. They are responsible for the entire development, testing, and maintenance of software.

Software developers must have the technical creativity required to solve problems uniquely. They need to be fluent in the computer languages that are used to write the code for programs.

[Communication skills](#) are vital for securing the necessary information and insight from end users about how the software is functioning.

According to the Bureau of Labor Statistics (BLS), software developers earned a median income of \$107,510 in May 2019, and employment was expected to grow by 22% from 2019 to 2029—much faster than average for all occupations.<sup>1</sup>

## Database Administrator

**Database administrators** analyze and evaluate the data needs of users. They develop and improve the data resources used to store and retrieve critical information.

They need the problem-solving skills of the computer science major to correct any malfunctions in databases and to modify systems in line with the evolving needs of users.

According to the BLS, database administrators earned a median income of \$93,750 in May 2019, and employment was expected to grow by 10% from 2019 to 2029, which is faster than average.<sup>2</sup>

## Computer Hardware Engineer

**Computer hardware engineers** are responsible for designing, developing, and testing computer components, such as circuit boards, routers, and memory devices.

Computer hardware engineers need a combination of creativity and technical expertise. They must be avid learners who stay on top of emerging trends in the field to create hardware that can accommodate the latest programs and applications.

Computer hardware engineers must have the perseverance to perform comprehensive tests of systems, again and again, to ensure the hardware is functioning as it should.

According to the BLS, computer hardware engineers earned a median income of \$117,220 in May 2019, and employment was expected to grow by 2% from 2019 to 2029—slower than average.<sup>3</sup>

## Computer Systems Analyst

**Computer systems analysts** assess an organization's computer systems and recommend changes to hardware and software to enhance the company's efficiency.

Because the job requires regular communication with managers and employees, computer systems analysts need to have strong **interpersonal skills**. Systems analysts need to be able to convince staff and management to adopt technology solutions that meet organizational needs.

Also, systems analysts need the curiosity and thirst for continual learning to track trends in technology and research cutting-edge systems.

Systems analysts also need business skills to recognize what's best for the entire organization. Similar job titles are **business analysts** or business systems analysts.

According to the BLS, computer systems analysts earned a median income of \$90,920 in May 2019, and employment was expected to grow by 7% from 2019 to 2029—faster than average.<sup>4</sup>

## Computer Network Architect

**Computer network architects** design, implement, and maintain networking and data communication systems, including local area networks, wide area networks, extranets, and intranets. They assess the needs of organizations for data sharing and communications.

Computer network architects also evaluate the products and services available in the marketplace. Computer network architects test systems before they are implemented and resolve problems as they occur after the setup is in place.

Computer network architects need to have the analytical skills to evaluate computer networks.

According to the BLS, computer network architects earned a median income of \$112,690 in May 2019, and employment was expected to grow by 5% from 2019 to 2029—faster than average.<sup>5</sup>

## Web Developer

**Web developers** assess the needs of users for information-based resources. They create the technical structure for websites and make sure that web pages are accessible and easily downloadable through a variety of browsers and interfaces.

Web developers structure sites to maximize the number of page views and visitors through search engine optimization. They must have the communication skills and creativity needed to ensure the website meets its users' needs.

According to the BLS, web developers earned a median income of \$73,760 in May 2019 and employment was expected to grow by 8% from 2019 to 2029—faster than average.<sup>6</sup>

## Information Security Analyst

**Information security analysts** create systems to protect information networks and websites from cyberattacks and other security breaches. Their responsibilities also include researching trends in data security to anticipate problems and install systems to prevent issues before they occur.

Security analysts also need strong problem-solving skills to investigate breaches, determine the causes, and modify or repair security systems.

According to the BLS, information security analysts earned a median income of \$99,730 in May 2019 and employment was expected to grow by 31% from 2019 to 2029—much faster than average.<sup>7</sup>

## Computer and Information Research Scientists

[Computer and information research scientists](#) invent technology that solves complex problems in fields like science, medicine, and business. They also find new uses for existing technology that accomplishes the same goals.

Computer and information research scientists write algorithms that are used to detect and analyze patterns in very large datasets. Some computer and information research scientists create the programs that control robots.

According to the BLS, computer and information research scientists earned a median income of \$122,840 in May 2019 and employment was expected to grow by 15% from 2019 to 2029—much faster than average.<sup>8</sup>

## Computer and Information Systems Managers

[Computer and information systems managers](#) analyze a company's technology needs and oversee the implementation of appropriate data systems. They need to be able to evaluate software, hardware, networking, and other technology resources for purchase or development purposes.

Because computer and information systems managers hire, train, and supervise staff, interpersonal skills are vital in this role. They must be [strong leaders](#) who can communicate effectively with their staff.

According to the BLS, computer and information systems managers earned a median income of \$146,360 in May 2019 and employment was expected to grow by 10% from 2019 to 2029—faster than average.<sup>9</sup>

## IT Project Manager

[Project managers](#) in the IT sector coordinate the efforts of a team of programmers/developers and analysts to complete projects. They also analyze technical problems for their company or a client organization, proposing solutions and tips to enhance productivity.

Problem-solving skills and a broad knowledge of technology and computer systems help computer science majors excel in this role. Strong communication skills are required to decipher the needs of users and convey technical specifications to developers.

According to PayScale, project managers earn an average annual income of \$88,896.<sup>10</sup>