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Top IT Jobs for 2010 and Beyond

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Introduction

The economy is improving (albeit at a slower rate than we would like), and employers are hiring again. There will be an increasing demand for IT specialists in many areas including VoIP, security, and virtualization amongst others. What is interesting about the IT field is the long list of computer careers available. What does this mean for the IT community? Jobs are coming back for IT professionals as well! What is key now is to find the critical IT jobs—the hot jobs for 2010 and beyond. This paper will list some of those jobs.

Information Systems Auditor

First off, a corporate Information Systems Auditor should not be seen as “the bad guy”. They have a difficult job ensuring organizations comply with the myriad details of federal, state, and local legislation (and in some cases international) and compliance requirements to secure data, corporate, and IT records. Information Systems Auditors don’t actually perform or implement any changes—they simply offer an independent review of the systems and make recommendations. It is the rest of the IT staff that implement these changes.

Need for Information Systems Auditors is increasing, and there are several certifications that can be obtained for this role, including the CIA (certified internal auditor) and CISA (certified information systems auditor).

Computer Forensics

The computer forensics field is growing fast as well, but for different reasons. What is generating a huge demand for computer forensics specialists? The rampant increase in cyber-crime. Cyber-crimes and cyber-criminals have increased faster than law-enforcement, government officials and legislation can react. Cyber-crime has cost corporations and consumers billions in identity theft, credit-card fraud and other actions. This is where the computer forensics professional comes into play. A computer forensics specialist has the technical and analytical expertise to examine computers, storage, operating systems, network traffic, and programming languages (it also doesn’t hurt to a good working knowledge of Linux).

There are several computer forensics certifications (as well as university degree programs) available: CHFI (Certified Hacking Forensics Investigator); CISSP (certified information systems security professional); GCFA (GIAC Certified Forensics Analyst); EnCE (EnCase Certified Examiner); and CCE Certified Computer Examiner.

Database Administrator

The roles and responsibilities of a database administrator are quite varied and as a consequence, so is the skill set required. Access to information (both speed and accuracy) is critical to corporations and as a result, corporations are dependent on their databases. Regulatory compliance has had a significant impact (on retaining data and safeguarding privacy) on database management and data retention. Corporations are required to retain information for a number of years. This holds true for corporate communications including e-mails, IM, and voice conversation details (calls placed, duration, not the conversation themselves).

One thing to keep in mind is that, for the most part, DBAs are not programmers. This does not mean that DBAs do not have some programming skills. Rather, it is not a predominate facet in their skill set. DBAs will most likely have knowledge of Visual Basic or other scripting languages, C/C++, Java, and other programming languages. A DBA must also have knowledge of the relational database language used for their database (Oracle's PL/SQL, Microsoft's T-SQL). Again, this does not mean they must be a developer, but rather have a good working knowledge of their relational database language.

Many Microsoft products (SharePoint, Exchange 2007 and Exchange 2010, Office Communications Server, and Project) use a SQL database for the backend monitoring, archiving, and compliancy requirements.

Software Engineers

Software engineers design and develop the programs that we use on a day-to-day basis, including business applications, games, and operating systems. Software Engineers must be experts in several areas to effectively write and test their software. They must have a deep understanding of the theory of computing systems and how hardware components communicate to ensure that the underlying systems will work properly. Computer programmers can work for software companies or independently (telecommuting is an excellent option for Software Engineers). According to the Bureau of Labor Statistics, "Computer software engineers are among the occupations projected to grow the fastest and add the most new jobs over the 2008-18 decade, resulting in excellent job prospects". There are numerous programming platforms that software engineers can use including: C; C++; C#; JAVA; .(dot)Net; PHP; Visual Basic; Perl; Python; Ruby; and Delphi.

Network Administrators

The basis of networking is to facilitate and maintain communications between various networking devices. This is a daunting task, especially given the complexity of today's technologies. Organizations of all sizes need to securely share resources as well as utilize messaging, VoIP, and other networking solutions. There are many new technology areas to keep track of. This means that Network Administrators who have the skills to stay on top of these high-tech fields will always be in demand. Networking is one of the IT fields in which you must keep up with changes in technologies, especially when considering all of the new wireless devices that users want to have accessing corporate networks.

IT Security Manager

The role of an Information Security Manager has increased with the rise of cyber-crime and new federal legislation safeguarding corporate, customer, and personnel information. An Information Security Manager is responsible for creating, establishing, and maintaining organizational policies and procedures. One of the IT Security Manager's responsibilities is ensuring that employees are following these policies and procedures.

The IT Security Manager is responsible for securing corporate wired and wireless networks, off-site storage, acceptable use policies, proper usage of hardware, protecting the network from hackers and maintaining corporate network security. This is a position that requires continual vigilance and a willingness to stay informed of new security vulnerabilities as they are discovered. The primary certifications for Information Security Managers are the CISM (Certified Information Security Manager) and the CISSP (Certified Information Systems Security Professional).

Virtualization Engineers

As companies look to consolidate their server farms and take advantage of virtualization, they will need the services of a Virtualization Engineer. Virtualization has been used with great success in most areas in IT. There are some server roles that do not readily lend themselves to virtualization, but most do. The cost savings from not having to cool large numbers of physical servers means reduced electricity costs and has corporations and government entities considering moving many of their server roles to virtual environments. Since this a new and growing field, there is a huge demand for (what is right now) a small number of certified virtualization engineers. Both VMware and Microsoft have certification programs in place.

Project Manager

The role of a project manager (PM) is to serve as the intermediary between the IT project team members and the key individuals who are involved with a project. A PM tries to ensure that a project is completed in a timely manner and within all budgetary and legal constraints. The typical scope of a PM's responsibilities include overseeing the processes and methodologies used for the successful completion of the project. The successful PM cannot only help save money for their company, but can also ensure all timelines are met (which some would say is also saving money). There is a growing demand for skilled and competent IT project managers. These are the PM's who can work through a budgetary crisis and conflicting resource priorities. Certifications typically associated with project management include the PMP® (Project Management Professional) from the Project Management Institute and Project+ from CompTIA.

Voice Specialists

Pick your voice flavor of choice—Office Communications Server (now Communication Server 14 for the latest rendition), Polycom, Avaya, or Cisco to name but a few—they all require highly skilled and knowledgeable people. This is even truer when trying to integrate conferencing or Unified Messaging into the network. VoIP is growing rapidly, and businesses are demanding the integration of voice with their messaging and conferencing networks. The problem is there just aren't that many experienced voice people, especially ones who are skilled in two or more platforms. If you happen to be a Cisco voice guru and have also mastered the intricacies of Office Communications Server 2007 R2 Unified Messaging and Conferencing, then you are set!

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