

# Atomic Object Bit Camp

## INFORMATION TECHNOLOGY CAREERS

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### Overview

IT is short for Information Technology, a broad term covering all aspects of managing and processing information. IT professionals design, develop, support and manage computer software, hardware, and networks such as the Internet. The applications of these technologies are all around us. In fact, IT is probably already a part of your life in ways you are not even aware of. Computer software used to write a term paper, computer generated animation in a blockbuster movie, networks and programs that let you order books over the Internet, and satellites and systems that enable NASA to conduct remote space exploration are all developed by creative and dedicated IT professionals.<sup>1</sup>

The careers afforded by the IT field offer interesting and rewarding challenges as well as immense opportunities for innovation, creativity, and learning. Information is central to how humans live and work together. Consequently, it is difficult to imagine the ever growing need for efficient management of information to slow any time soon. IT will remain a staple of the world's economy for decades and centuries to come.

Careers in Information Technology take many forms. Job titles include Computer Engineer, Database Administrator, Software Developer, System Analyst, Networking & Security Specialist, System Tester, Chief Information Officer, Project Manager, and many more. Information Technology professionals typically acquire specialized technical training; this training ranges from trade school certification on up through doctoral work. A 2005 nation-wide salary survey performed by the National Association of Colleges and Employers found the starting salaries of graduates with four year bachelor's degrees in IT fields to be near the \$50,000 per year mark. Further, the same survey found that jobs in the IT field were some of the ten most offered positions for new college graduates.<sup>2</sup>

### Myths & Facts

*Myth #1: All IT Jobs Are Going Overseas.*

Information Technology is a maturing industry. As such, some job functions simply make more sense to outsource to low-wage employment centers typically found overseas. While this shift has been dramatic in recent years, the growth rate in IT jobs remains strong inside the United States. According to the U.S. Department of Labor, IT remains one of the 25 fastest growing industries in the nation. Wage-and-salary employment is expected to grow 40 percent by the year 2014, compared with only 14 percent growth projected for the entire economy.<sup>3</sup> The simple fact remains that business

thrives on innovation. Innovation cannot be effectively or safely outsourced. Businesses must keep their most cutting edge work close to home. Cutting edge work in any field nearly always involves Information Technology in one of its many forms. In fact, there has been a recent rebound as companies realize the difficulties inherent in exporting critical work to far-off lands.

*Myth #2: IT Jobs in General Are on the Decline.*

The technology bubble collapse of the late 90's (the so-called "dot com bust") has produced dramatic stories. While IT hiring has slowed considerably in comparison to the "irrational exuberance" of a decade ago, it remains quite healthy. Government economists estimated which occupations would grow fastest between 2004 and 2014. They also predicted which occupations would have the most new jobs. Five of the top ten fastest growing occupations in that study were in the IT field. Four of the top ten bachelor degree level occupations with the most new jobs were also in the IT field.<sup>4</sup> Continuing advancements in communication technology (cell phones, wireless networking, digital entertainment), medical treatment (bio-informatics, digital healthcare record management), and computers themselves (nanotechnology, quantum computing) ensure that IT will continue to grow.

*Myth #3: IT Careers Have Little Room for Advancement.*

Information Technology may appear on the surface to concern itself primarily with technical career paths. This may have been true at one time but no longer. The skills necessary to be effective in today's IT world as well as the exposure to every aspect of a business via the technology that manages that business qualify IT professionals for much more than a generation ago. The skills gained through technical problem-solving and customer interaction as well as the exposure to critical parts of a business mean clear opportunities for IT professionals. Today, high ranking management talent and even CEO's are being drawn from the ranks of IT professionals.

*Myth #4: IT Careers are for Geeks.*

There once was a day when a company's network and computers were placed as an afterthought in the basement. There once was a day when a software developer had rightfully earned a reputation as socially awkward and reclusive. Today, however, Information Technology is front and center in the business world. IT professionals must now be effective communicators as they are often the front line with customers and management. In fact, there is a clear and growing movement away from lone software developers coding all through the night while eating pizza and wearing headphones. Information Technology has become a very team-based and socially-oriented trade that has clear opportunities for introverts and extroverts alike.

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<sup>1</sup> University of Washington. "Careers in Technology: What is Information Technology?"

<http://www.washington.edu/students/it/>

<sup>2</sup> [http://money.cnn.com/2005/04/15/pf/college/starting\\_salaries/](http://money.cnn.com/2005/04/15/pf/college/starting_salaries/)

<sup>3</sup> Bureau of Labor Statistics, U.S. Department of Labor, Career Guide to Industries, 2006-07 Edition, Computer Systems Design and Related Services; <http://www.bls.gov/oco/cg/cgs033.htm>

<sup>4</sup> <http://www.collegeboard.com/article/0,3868,4-24-0-236,00.html>