

# Saarth

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### Research On IT AS PROFESSION

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#### ABSTRACT:

In this paper we are revisiting the concept of profession and IT. Definitions of the concept of readily encountered in the literature on professions. Soft skills are personal attributes that drive an individual's interactions, increase job performance and brighten their career prospects. De-motivation, insubordination, unpredictable behavior, deception, conflicts and dis-trust are generally the output from the absence of soft skills and values and types of IT Profession. i) Support specialist ii) Computer programmer iii) Quality assurance tester iv) Web developer v) IT technician vi) Systems analyst vii) Network engineer viii) User experience designer ix) Database administrator x) Computer scientist. Xi) Software engineer xii). IT security specialist xiii) Data scientist xiv) IT director. Soft skills are learned behaviors which require training and focused application in that particular area. Soft skills will enable performers with a strong conceptual and practical framework to build, develop and manage teams at workplaces. They play an important role in the development of the people's overall personality. For effective performance in the workplace, companies need their employees to have not only technical knowledge, analytical skills, but the skills to deal with the external world of clients, customers, vendors, the government and public and to work in a collaborative manner with their colleagues.

#### KEYWORDS

Defining profession, Defining IT Interactions, Behaviors, Technical Knowledge, Training, Acquired

### 1. INTRODUCTION

A **profession** is an occupation founded upon specialized educational training, the purpose of which is to supply disinterested objective counsel and service to others, for a direct and definite compensation, wholly apart from expectation of other business gain. Medieval and early modern tradition recognized only three professions: divinity, medicine, and law, which were called the **learned professions**. A profession is not a trade and not an industry. **Information technology (IT)** is the use of computers to store, retrieve, transmit, and manipulate data or information. IT is typically used within the context of business operations as opposed to personal or entertainment technologies. IT is considered to be a subset of information and communications technology (ICT). An **information technology system (IT system)** is generally an information system, a communications system, or, more specifically speaking, a computer system – including all hardware, software, and peripheral equipment – operated by a limited group of IT users.

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### 2. IT AS PROFESSION

IT, also known as information technology, indicates the transfer or other use of information through computers or computer systems. IT **professionals** do a number of different tasks. They are the people who test, build, install, repair, or maintain the hardware and software associated with complex computer systems in one or more locations. Some companies will hire several IT professionals throughout the world in order to maintain their wide range of networks of computer systems. The nature of the internet allows IT professionals to do their jobs from any location. But in certain instances, like when there is a hardware issue, the IT professional will need to physically alter the broken system.

### 3. TYPE OF IT PROFESSION

Information technology (IT) professionals are responsible for helping organizations maintain their digital infrastructure and providing troubleshooting assistance to technology consumers. IT employees are in demand to help others keep up with technological advances and security procedures. If you are interested in developing skills in programming and problem-solving, you may consider a career in IT.

#### 1. Support specialist

**National average salary:** \$30,540 per year

**Primary duties:** Support specialists are responsible for reviewing and solving computer network and hardware problems for a business. They can work in a variety of industries to provide general support to a company's employees, or they can work at a technology or software as a service company and provide technical support on user experience issues that require technical assistance.

**Requirements:** Support specialists typically obtain a Bachelor's Degree in Computer Science or Information Technology. Having a certificate or an associate degree paired with relevant professional experience may also be acceptable.

#### 2. Computer programmer

**National average salary:** \$58,343 per year

**Primary duties:** A computer programmer is someone who writes new computer software using coding languages like HTML, JavaScript and CSS. Video game software can be updated to improve online game play, which is an opportunity for programmers to troubleshoot problems experienced by gamers after the game is released to the general public.

**Requirements:** A programmer typically completes a Bachelor's Degree in Computer Science and an internship to build their skills. Certifications are also strongly encouraged, and there are many coding academies to choose from.

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### 3. Quality assurance tester

**National average salary:** \$70,000 per year

**Primary duties:** Quality assurance testers are technicians or engineers who check software products to see if they're up to industry standards and free of any issues. This role is common for gaming systems, mobile applications and other technology that needs further testing and maintenance when recommended.

**Requirements:** Many quality assurance testers have a Bachelor's Degree in Software Design, Engineering or Computer Science. Testers can work on different software for IT companies, which may influence what degree or specialization they pursue. These professionals should also have excellent time management and communication skills to help document test cases.

### 4. Web developer

**National average salary:** \$72,040 per year

**Primary duties:** Web developers design the appearance, navigation and content organization of a website. They use coding languages such as HTML, CSS and JavaScript to manage graphics, applications and content that address a client's needs.

**Requirements:** Many web developers earn an Associate Degree in Web Development or another relevant IT field. Some may pursue a Bachelor's Degree in IT or another business field. Others may develop their web design skills through certificate programs or self-paced learning. To secure employment, previous experience and a portfolio of work are often required.

### 5. IT technician

**National average salary:** \$74,664 per year

**Primary duties:** An IT technician collaborates with support specialists to analyze and diagnose computer issues. They also monitor processing functions, install relevant software and perform tests on computer equipment and applications when necessary. They may also train a company's employees, clients and other users on a new program or function as well.

**Requirements:** IT technicians must earn an Associate Degree in Information Technology or a Bachelor's Degree in Computer Science or Networking. Technicians render services for IT companies depending on the industry they choose to work in and may need to learn more about database programming to give themselves an advantage in an entry-level role.

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### 6. Systems analyst

**National average salary:** \$78,587 per year

**Primary duties:** A systems analyst reviews design components and uses their knowledge of information technology to solve business problems. They identify ways that infrastructure needs to change to streamline business and IT operations. They can also assist technicians in training staff to implement the changes they propose.

**Requirements:** A Bachelor's Degree in Computer Science or a related field is often required. Coursework in business administration, management and finance may help these professionals better apply their IT knowledge to improving business practices.

### 7. Network engineer

**National average salary:** \$87,919 per year

**Primary duties:** Network engineers work on the day-to-day maintenance and development of a company's computer network, utilizing their skills to make the network available and efficient for all employees within an organization.

**Requirements:** These professionals typically need a Bachelor's Degree in Computer Science and Information Systems to understand the functions of a network and become familiar with potential solutions needed to maintain one. Some employers may also require a Master of Business Administration (MBA) for those who work with other internal stakeholders of the organization to determine the best technology practices.

### 8. User experience designer

**National average salary:** \$89,250 per year

**Primary duties:** A user experience (UX) designer is involved with all facets of product development regarding its purchasing, branding, usability and functionality. They collect and review user feedback to determine what a product needs to be efficient, functional and successful. They apply this feedback to the design, organization and usability. These professionals then monitor the process of testing and revising products until they meet their consumers' high-quality standards.

**Requirements:** UX designers may pursue an associate or bachelor's degree program in an IT field and pursue additional coursework or training in design, business, web development and programming. Others may be self-taught in programming, design and development. Many employers do seek previous experience, so an internship or portfolio may help these professionals secure employment.

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### 9. Database administrator

**National average salary:** \$92,194 per year

**Primary duties:** Database administrators employ specialized software to organize and keep track of data. The software can be associated with software configuration, security and performance when applicable. These professionals frequently diagnose and solve complex IT issues related to the data infrastructure to ensure an organization's data is safe, accessible and easy to navigate.

**Requirements:** Database administrators typically need to earn a Bachelor's Degree in Computer Science or Management Information Systems. They often start as a database analyst or a developer before moving into this role so they can get the experience in data collection and working within a network's databases.

### 10. Computer scientist

**National average salary:** \$100,945 per year

**Primary duties:** A computer scientist applies their technological skills and resources to solve IT problems for businesses. They write new software to complete tasks in a quick and efficient period as well as develop new functions that can be of use for employees or clients.

Some computer scientists may also be application developers who help program software to serve users. IT companies heavily rely on computer scientists to create new programming languages and bolster the efficiency of hardware and software programs.

**Requirements:** Most computer scientists need to have a bachelor's degree, but many employers may require a master's degree as well. Previous work experience may also be valuable to prospective employers.

### Other IT jobs

Here are other related positions to explore in the IT industry:

**Management information systems director:** A management information systems director spearheads the implementation of software, equipment installation and other projects to improve the quality of a company's information systems.

**Web administrator:** A web administrator sets up an organization's web host, grants access for specific users, creates mail servers and helps users understand the basic functions of the system they're using.

**Applications engineer:** An application engineer is a liaison between engineers and customers. They review customer sales data and to assist in producing and testing complex

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software programs. They also present engineers' findings to the public to render feedback on changes that need to be made.

**Data quality manager:** A data quality manager manifests data practices for an organization. For example, they can establish processes with a customer relationship management (CRM) system to keep the operational quality high for its users.

**Help desk technician:** A help desk technician renders technical support to address issues with a company's hardware or software equipment. They can serve as in-house or remote employees and must convey issues to employees in a clear and understandable way.

**IT coordinator:** An IT coordinator completes administrative tasks to help maintain an organization's computer networks. Some tasks include giving IT advice to users, providing training to new employees and applying new IT practices to computer hardware or software.

**Cloud system engineer:** A cloud system engineer estimates the amount of database storage a company has and measures the availability of programs for the user. They also evaluate if data is being processed correctly within an organization's cloud infrastructure.

#### 4. SOFT SKILL TO DEVELOP IT AS PROFESSION

A thirst for knowledge. Adrian Ridner, CEO and co-founder of online learning platform Study.com, says that employers place a high value on candidates who have an ability to learn.

- Team mentality. ...
- Flexibility and commitment. ...
- Project management. ...
- Self-awareness. ...
- Communication skills.

#### 5. *Stay Current in a Dynamic Field*

IT in higher education is a fast-moving landscape of innovative products and services; new, merged, and defunct vendors; novel pedagogies; and changing business practices. Keeping pace with technology is necessary but not sufficient, since technologies often have adoption rates in academe that differ from the commercial and consumer mainstream. In some cases—TCP/IP and the Internet, the Macintosh, broadband in residences—education has been an early adopter, whereas we have lagged in deployment of security and other technologies. Our special challenge is understanding which technologies best suit the needs, budgets, and cultures of colleges and universities—the shape and surface of our hockey rinks, as it were. IT in higher education is a fast-moving landscape of innovative products and services; new, merged, and defunct vendors; novel pedagogies; and changing business practices. Keeping pace with technology is necessary but not sufficient, since technologies often have adoption rates in academe that differ from the commercial and consumer mainstream. In some cases—TCP/IP and the Internet, the Macintosh, broadband in



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residences—education has been an early adopter, whereas we have lagged in deployment of security and other technologies. Our special challenge is understanding which technologies best suit the needs, budgets, and cultures of colleges and universities—the shape and surface of our hockey rinks, as it were. Many of us look at the chance to attend a training session, a conference, or a lecture as a wonderful opportunity to get out of the office, make new connections, engage with colleagues, and learn and reflect in an environment removed from the day-to-day pressures of campus IT life. We often return to campus with new ideas, feeling rejuvenated and ready to tackle the next big thing. Even reading an article or participating in a Webcast can be stimulating and give us new insights into our work. These positive experiences are not only valuable personal and professional activities but also directly benefit our institutions through an infusion of fresh energy and ideas and validation of current effective practice.

### 6. CONCLUSION

In this field, technical support deals with PC, laptop repair, and maintenance, installation and set up, configuration, etc. **Networking**, here, professionals install networks and take care of the efficient functioning of these network systems. **Internet and website designing**, here professionals design, develop and maintain websites and web pages. **Programming**, here the experts develop and design programs for different sectors, such as operating systems, games and word processors. **Database creation**, here the experts develop and designs database software to update and manage various types of databases. **Software development**. Here experts develop software to manage different things, like production, resources, finances, etc. One can learn these skills either by joining professional courses or from on the job training and experience; in most cases, IT professional is a combination of both. But only learning these skills and getting certification does not guarantee one's success and prosperity in this field. Success in this field depends on a lot more other things, like making the right career decision- which tech area one should specialize in, which IT professional meaning area best suits one's personality, which course, training program, and certification would be beneficial for the future, what type of career challenges would one face while opting for a particular area of specialization, which company to work for and how to plan one's career. Apart from this, one should analyze oneself in terms of whether he is fit for a career in the IT professional industry. He should enter this field only if he possesses these traits and qualities.

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