My Major

[Author Name(s), First M. Last, Omit Titles and Degrees]

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For many, stepping into professional life and selecting which career to adopt next is worrisome and overwhelming. It is very important first to find one's passion and evaluate skills. Many people regret choosing a job later or find it monotonous. Living in the 21st century, career options are diverse but demanding as well and related to Information Technology in one or another.

The term ‘Information Technology’ encircles every field where data is obtained to process and extract useful information. There exist diverse ways to collect and process data. (Apel, 2003). In the late 1940s, Information Technology was first introduced to the world through scientific research and applications. Information technology means scientific knowledge or technique linked to computing like the internet, software, and hardware.

# Careers in Information Technology

In many successful companies and organizations, a separate IT Department is established which is responsible for dealing with the network, computer and connected devices, and other technicalities. An IT employee is an expert in computer engineering and knows how to manage networking and computer administration.

# Sectors Revolutionized by IT

Information technology has offered a revolution in almost all sectors of life. Information technology has served the purpose of making lives easier. It has positively impacted on following sectors and more:

**Healthcare**

The progress of 5G technology has enabled a revolution in different fields like locomotive, transport, and health. (Thuemmler, Paulin, Jell, & Lim, 2018). Development in MRI, fitness watches, Rehabilitation, digital treatment equipment, and techniques is because of the progress in Information Technology. The infant mortality and risk of diseases has declined. With the use of Big Data, the conditions of a patient are monitored. The system can now efficiently diagnose and suggest medicine or treatment.

**Food Industry**

The lifestyle of a common man, who doesn't even know much about technology, has been transformed completely. A few years back, no one thought, they would be able to buy the food they like online at any time and get it delivered within a few minutes. The restaurants and food places have introduced websites, mobile applications and digital systems to order, track and receive food. On locations, the food companies provide tablets and digital screens to order food and pay through them. The experience is convenient as well as quick for the customers. Moreover, it has boosted sales.

**Transport**

This aspect of Information technology is not much discussed in everyday life, however. The transport sector has developed since the introduction of IT practices. Transport services depend on analytics and Big Data to analyze the travelling pattern and difficulties faced by passengers. With this information, better strategies are implemented to facilitate passengers. Booking can be made online through the application, without delays. Likewise, the user is informed immediately through application in case of delays.

**Finance**

The finance sector is also benefiting from IT; however, it is not much highlighted like other sectors. Mobile banking, online international transfer, and performing the financial analysis is common practice in every business today.

**Business Intelligence**

Business benefits immensely by data generated by users, processes, and tools in bulk. It has become obvious that traditional business methodology is not enough to compete with companies who are adopting new technologies, and the use of technology has become inevitable in business. The data was first analyzed from spreadsheets and old tools. Nowadays, the process is automated, and the person only needs to input data which is analyzed by the smart system automatically. The chances of error are reduced significantly.

**New and Upcoming Trends in IT**

IT is fetching new technologies here are some of the new trends of IT that will become vital in every sector soon enough.

**Internet of things(IoT)**

If one analysis the use of devices in everyday life, it will clear that many of them are IoT based. Internet of things (IoT) is based on the concept that all technical devices are connected to the internet in such a way that physical and digital systems are merged. IoT can be a hub of all information about any person based upon the usage and consumption tracking through devices they use. This data can be used in studies, analysis and to improve the marketing strategies. It can provide new and improved business models.

**Machine** **Learning**

Computers are becoming smart and developing the capability to learn through patterns and information fed to it. It is because of an evolving technology 'Machine learning'. The analysis data available on social media leads to an elevated understanding of consumer's likeness and the ability to purchase. Not only this, Machine learning has various other applications like brain-controlled devices and bionic limbs. They provide people with disabilities a chance to live better. With this technology, other technologies and devices are becoming smart. In the future, almost everything will be automated, and even less effort will be required by humans to perform tasks.

**Virtual Reality**

Another technology of IT, Virtual Reality (VR) was developed in the 1950s; today, it has expanded to another level. It delivers the entirely indulging digital experience to the users. This innovation because of advancements in both hardware and software. Until now, VR was only used in games and movies, but now it has expanded to other fields like healthcare. Many scientists utilize this technique to study and teach biological anatomy. It has also impacted the business setups greatly as they have a new methodology to attract more customers.

**E-Commerce**

In the present world, anyone can buy anything over the internet, even from farthest regions of the world with only a touch of a finger; likewise, money is transferred worldwide. In this year alone, online shopping has increased by 150%, and it enhances the sales rate directly. The use of mobile devices to buy anything ranging from edibles to furniture has become way easier. It has not only helped individuals buy effortlessly, but also helped the business to obtain resources and raw material comfortably and at a low cost.

**Augmented Reality (AR) Technology**

Augmented Reality superimposes an image generated through a computer over a real-world view. It combines the real-life view and computer-generated view to produce an image with factors from both realities. Many companies like Google, Samsung, Amazon, and Apple have launched applications of AR. It helped application developers to make apps with better quality and more functions. These applications have become popular among users, and they are curious to know what more AR can offer.

**Chatbots**

The compound annual growth of chatbot technology is 37.11%, and by the end of 2023, this industry is to reach a value of $6 Billion. Communicating via chatbot is highly preferable among people shopping online. This feature is used in mobile applications as well as websites. It is not possible for a human to be always available for a chat with a customer, and this can result in loss of sales. However, with the use of a chatbot, customers can ask their queries or get guidelines within no time. Chatbots used in the business application provides customers with an interactive experience as same as that with a human.

**Cognitive** **Technology**

Another remarkable evolution of IT is Cognitive technology which functions just like a human brain in several ways. It can perform natural language processing, pattern and speech recognition, and data mining. It carries out an automated analysis of data from human experiences and reactions to evaluate and learn. Cognitive technology is like VR, ML, and AI, but its spectrum is even broader.

**Reasons to choose IT as Major**

The major student takes in college, most likely becomes a career for that student. One who takes IT as a major paves for an IT career which has every right reason to be one of the best careers nowadays.

**Job** **Growth**

With the advancement in technologies, more jobs are available in the market for those with technical skills. Jobs opportunities like Web developers, Network architects, Lead generator, Information Security Analysts, and SEO Experts have doubled every year. New research areas like cybersecurity, cloud computing, health informatics, and data processing, etc. have brought new job openings.

**Industry and Job Diversity**

Jobs available for IT students are not just mainstream. Every industry, company, and the sector has incorporated IT in its core. Every organization requires a team that designs and develops multimedia, software, hardware, and social media presence to enhance productivity and sales. People who are passionate to innovate and have knowledge of technology have an incredible chance to join the company of their choice. Moreover, business-IT jobs are not merely office jobs facing the computer all day long; rather, it demands social as well as business skills.

**Strong** **Income**

IT experts earn a handsome amount for the innovative task they do and the technical problems they solve. The salary also depends upon the complexity and innovation level of work. An IT expert can always learn more skills and advance in their careers. It is because IT is an everchanging field and brings something new every day.

**Lesser Education expenses**

Many careers require higher education and many years' experience and not even pay much. However, the field of IT may not require masters or PhD IT jobs generally require skills, certifications, basic technical education (bachelors) and experience from internships.

**Entrepreneurial Training Ground**

The combination of IT with business has created a concept of never-ending advancement. The new products to improve life must be available commercially for consumption. Hence it rises a need to provide the great idea of a business platform. It is observed that technology businesses like Facebook, Google, Twitter, and Apple, etc. are setting a new dimension for the market. This practice is not only beneficial for the investors and stakeholders, but it also provides life-improving facilities to society.

# Personal Ambition

# Information technology has diverse aspects and new fields evolving out of it, providing a range of fields as research and career. Because of my research-oriented and investigated personality, I will choose IT and Cyber Security as a specialization course. The need for cybersecurity has grown today more than ever. Information technology has made data accessible to many, but it is crucial to keep the confidentially of data intact.

**Conclusion**

The main purpose of choosing a major is to align interests and skills with education, which will benefit student as well as the community. Numerous technologies and applications have emerged in the past few years. They have changed their lifestyle and made every task easier. Information technology is advancing and developing other fields as well. People involved in IT are aware of every new evolving trend in the world of science. Thus, I have chosen my major 'information technology' as it interests me greatly, and it has astounding prospects.

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