

C++ is rather old language but it is still popular. You can use it almost everywhere because of its speed and multi-paradigm programming. Such programs like Adobe Photoshop and games like Assassins Creed are written on that language. Ubisoft company use in for all games developed by them. A huge part of OS Windows is written on that language too. Also it can accept other languages so you can write code on other language then compile it in library and use in C++ code.

Java is most popular language for object-oriented programming and it appeared at the end of previous century so it is rather modern. The best strength of Java is JVM (Java virtual machine), which helps programs to run on a different computers and operating systems. Java specialists have very well-paid jobs because of its popularity. So if your goal is money start to comprehend in right now. Learning its syntax it is a good idea even if you will never program on it. But because of this machine Java code is slower to compile than code written on other languages.

Python is also multi-paradigm programming language and used in such giant IT companies like Google and Ubuntu. Also it allows programmer to create a very readable code because of its philosophy. It is very popular language and used for a lot of tasks, so you can as easily find job as Java programmers.

PHP is the most popular language for web applications. You surely need to know this language to work with web. But it has very complicated syntax and a lot of ways to do the same task.

Life of programmer is difficult and very unique for different people but has a lot of positive moments. So what path you will choose depends only on your personal preferences.

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BENEFITS OF BLOCKCHAIN TECHNOLOGY

Blockchain is the way of storing data or, in other words, a digital ledger of transactions, trades, contracts. All kinds of data, that need separate independent entries and, if necessary, verification, can be stored in blocks of a blockchain. Blockchain is capable of storing data on granted loans, property rights, traffic violations, marriages. That means virtually any kind of data, especially government-related.

The main difference and the biggest advantage is that the ledger is decentered as it is not stored in only one place. It can be distributed among several hundreds and even thousands of computers all over the world. Any user of this network can have free access to the current version of the registry, which makes it transparent to all participants.

Blockchain is the public database of all transactions that have ever been conducted in the system. The chain of transaction blocks is a chain of transaction blocks built according to certain rules. The term first appeared as the name of a distributed database implemented in the Bitcoin crypto-currency.

Digital records are combined into "blocks", which are then linked cryptographically and chronologically into a "chain" using complex mathematical algorithms. Each block

is associated with the previous one and contains a set of records. New blocks are always added strictly to the end of the chain.

A large number of different computers running on the same network perform the encryption process, known as hashing. If all of them in the end of their calculations obtain the same results, the block gets unique digital signature. As soon as the registry is updated and a new block is formed, it can no longer be changed. This makes impossible to forge blocks, you can only add new entries to them. It is important to consider that the registry is updated on all computers on the network at the same time.

The distributed nature of the blockchain databases makes hacking almost impossible, because hackers would need to access all copies of the database on all computers on the network. Technology also allows you to secure personal data, because the hashing process is irreversible. Even if the original document or transaction is later changed, they will receive a different digital signature as a result, which signals the system about mismatch.

Another substantial benefit of the blockchain is its transparency. Transparency means that all of the information stored in the blockchain database is always available for its users. This includes information on all of the transactions, contracts, etc.

The other key feature of this technology is the almost limitless capacity of the blockchain database. The way, that the blocks are connected to each other means that the length of the “chain” is only limited by a storage space of the computers on the network. The last block always has a link to the previous one and so on. This structure makes creation of the chain of any length possible.

One of the biggest use-cases of the blockchain for companies and the way which common people can use it too is tokenizing some asset or right. For example, some businessman already tokenized their work time, so the people that bought and own the tokens have legal right to the share of their time. Another way to use tokenization is to create “digital gold currencies” – form of digital currencies based on mass units of gold. That means that the rights for shares of gold that the company owns belong to the people holding that digital currency.

All things considered, the blockchain provides many features and benefits to the projects that use it. This technology has a great outlook for the governments and private companies alike. The way blockchain term itself was coined and the most common way to use blockchain architecture nowadays is to power digital “crypto-currencies” such as Bitcoin. But, as the time goes, more and more companies in many different fields start blockchain-based projects and benefit from all the added value this technology brings.

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NEURAL NETWORK

A neural network is a system that tries to analyze information in much the same way as the human brain and is able to learn in the process of its work thereby