

# Development and Research of Computer Software Based on Parallel Large Data Flow and Migration Learning

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**Abstract:** In the era of big data information, various kinds of information are constantly emerging, and the skills and requirements of computer software technology are becoming higher and higher. The basic service of computer is computer software technology, and the rapid development of large data has a vital impact on it to varying degrees. Therefore, this paper first analyses the current situation of computer software development in the era of large data, then describes the technology of transfer learning computer software for parallel large data streams, and finally describes the development and application prospects of transfer learning computer software for parallel large data streams.

## 1. Research Background

### 1.1 Literature review

The development of computer software plays an important role in the era of big data, which has been discussed in detail by many scholars at present. Wen Yi Min and others believe that with the arrival of big data, data stream classification has been applied in many fields. He proposed the concept of recurrence of online transfer learning (Wen, 2016) for the classification of recurrence concepts and the lag of “negative transfer” of learning problems. According to the study of Ji Chun Feng, with the development of China's economic level, China ranks first in the world in the field of general science and technology. But in the field of high-tech, computer technology has more important value than other technologies. The influence of computer technology is expanding in the context of big data (Ji, 2018). Li Xie believes that the era of big data has brought earth-shaking changes to people, and computer network information is growing rapidly. Based on this, the author takes computer processing technology as the research object under the background of big data, and plays a driving role in its optimization and improvement (Li, 2018). Song Jun Feng 's research points out that in the current big data environment, computers are applied to all aspects and various industries, computer technology has been widely used, and the application of computer software technology has been studied (Song, 2019). Wu Xin Yu believes that computer technology has been widely used on the basis of the rapid development of science and technology, and the development of computer technology has been integrated into people's daily life. Due to the rapid development of information technology, China has entered the era of big data. The authors believe that the development of enterprises can not be separated from the support of computer technology (Wu, 2018). Hu Sheng Yan believes that the development of Chinese computers and computer software technology have also been widely applied. In the era of big data, the development of computer software technology in China and its specific applications are also faced with difficulties and problems (Hu, 2018). Wu Xiu Ying believes that in recent years, the overall level of science and technology in China has been continuously improved, and computer software technology has been expanding constantly in the industry, which has accelerated the progress of society. In view of this, the author introduces the application of computer software technology in the era of big data (Wu, 2018). Feng Shu Wei and others believe that human beings have entered the era of artificial intelligence, and the development of software technology is also convenient for people's lives, but there are certain hidden dangers in computer information network security. Therefore, how to develop computer software technology is a face-to-face problem (Feng, 2018).

## **1.2 Purposes of research**

With the rapid development of science and technology, people have entered the era of big data, and computer software development technology has gradually become mature. In this context, software development technology has also been widely used. In the field of teaching, the reform, development and improvement of learning software technology can provide better service for students' learning. In the era of big data, the application of computer software has been greatly impacted. At the same time, it also brings opportunities for its development. Therefore, the integration of computer software technology into the development of the era of big data can effectively improve people's learning and life style. In view of this, this paper mainly analyses the current situation of the development of computer software in the era of big data, and discusses the problems that need to be paid attention to when transferring and learning computer software technology under big data stream.

## **2. Current Situation of Computer Software Development in Big Data Era**

### **2.1 Development of China's software development technology in the era of big data**

Compared with other developed countries, China has great deficiencies in software development and lacks innovation. At the same time, the development stage of Internet technology in China is later than that in other countries, which leads to the lack of core technology in Chinese software development. Because of such problems, relevant R&D personnel can develop learning software that meets the needs of the times. Therefore, China should increase its analysis of successful cases, learn from its experience and enhance its core technology research capability. The development of computer software in China is relatively limited because of the lack of certain high-end technicians. Most developers do the basic work of technology. Therefore, China lacks the structure of software developers. If high-quality computer software technology developers are introduced into the outside world, they will consume a lot of financial resources. In the process of computer software development, they need to spend a lot of time, and it is difficult to obtain economic returns in the short term. Therefore, the above problems will lead to the lack of funds in the process of software development in some enterprises, and it is difficult to complete the work adjustment of relevant technical personnel, which will lead to the software development system has not reached the actual sound.

### **2.2 Application of Chinese software development technology under the background of big data flow**

China's software development and application are at a rapid stage of development. China's software development enterprises have established good cooperative relations with universities and R & D institutions, and have intensified their efforts in core technology research and development. Thus, the innovative ability of computer software development technology is constantly strengthened. In this case, software development technology is rapidly applied in China. At the same time, in order to complete the innovation and development of core technology, many organizations have also established a sustainable cooperation state with industry software. Computer software developers and customers establish a good cooperative communication relationship, can obtain user needs in real time, so as to quickly develop the application status. In addition, researchers should have a comprehensive understanding of the work, analyze the corresponding work, and then provide a strong guarantee for the development of computer software technology, and develop better computer software.

## **3. Transfer learning computer software technology for parallelizing large data stream**

In the era of big data, it is the core of data application to find the law of users' demand and consumption characteristics. In this context, the application of data to production, service and design plays an important role. In the era of big data, migration learning computer software

technology based on data stream mainly includes the following three aspects.

### **3.1 Cloud storage services**

In modern society, the development of large data streams has produced tremendous economic value, but also need to use more advanced technology for storage. At the same time, cloud storage technology breaks the boundaries and limitations of time and space, enriches the storage mode. As long as users can access the network terminal devices and connect the network, they can use large data streams to download cloud storage anytime and anywhere, and to view or download the contents, which is impossible for traditional storage methods. Cloud storage is a whole composed of several storage system units. It combines multiple functions and achieves the storage of resources through collaborative work. It is usually referred to as network database. Cloud storage technology is widely used in the context of the era of big data. It divides and organizes information in detail, which brings more convenient information services to users. Therefore, large data and cloud storage are interrelated. Cloud storage is not only an important link in the process of large data processing, but also an essential link.

### **3.2 Information security technology**

In the context of the big data era, there will be a certain correlation among all kinds of data. Linkages between various data may have a negative impact on information technology, and may also pose a threat to data information. In order to improve the security of data cluster, the staff must make scientific adjustment to the network of data management system. The Internet is an open platform, vulnerable to the threat of viruses, so to a certain extent, there are security risks, whether cloud storage technology or parallel large data can rely on the Internet, in such circumstances, the indispensable is the security of information technology. Although China's network technology started late than developed countries, China's network security technology is in the middle and upper reaches of the international rankings. With the increasingly wide use of parallel large data streams, Chinese computer software will also be recognized by the public in the future development process. Although computer software will encounter various challenges in the future development, according to the development characteristics and problems of various industries, we should formulate reasonable development plans and strategies to reduce the occurrence of large data information security problems. Computer software technology can improve the authenticity of data, improve the processing of data, and play a positive role.

### **3.3 Resource virtualization**

Virtual technology will optimize the allocation of internal resources for large data streams, and at the same time, it is mainly managed through resource virtualization. Virtualization technology is used reasonably by many people, such as learning, life and so on. It can ensure the user's operation more flexible and improve the efficiency of information processing. This technology can be embodied not only in daily life but also in computers. 2016 is called the first year of virtual technology. In recent years, China's virtual technology has developed rapidly, especially in the virtual technology industry, and the development space is gradually expanding. The combination of big data and virtual technology can not only improve the scientific research level of virtual technology, but also enable the innovation and development of virtual technology and improve the functions of virtual software, which is conducive to the stable development of virtual technology and its future development.

## **4. Development and Application of Migratory Learning Computer Software Technology under Parallel Large Data Stream**

### **4.1 Parallel application of big data flow in migratory learning software development**

First, on the Internet. In the era of big data, the Internet is widely used in software development technology all over the world. It promotes the sharing of resources and further promotes the communication and exchange of global information. Software development technology has the

characteristics of richness and self-control. It can complete the control of each node and achieve global coverage. The platform contains rich knowledge. Second, in the area of network communication. With the application of software development technology, it has a great impact on communication mode and tools. In order to keep up with the pace of the times, relevant personnel for information technology processing embedded in the software, promoting the development of computer software. Thirdly, with the development of big data, it also has a certain impact on the development of software. The process of data processing has changed from the traditional mobile phone method to the selective one, which forms a data-centric architecture and keeps pace with the times.

#### **4.2 Development of software development technology in big data era**

The rapid development of computer technology provides great convenience for people's information exchange and learning. At the same time, it provides better conditions for the sharing of information resources and makes the information exchange and learning process more reliable. With the continuous progress of the big data era, the transfer learning of computer software technology has also attracted much attention. In this context, relevant researchers optimize its development direction, provide quality of service, software development mainly to the direction of networking. Due to the impact of large data streams, software development technology shortens the distance between the world, realizes global communication, and also completes worldwide interaction. Therefore, in the future, software development technology should develop towards networking, gradually enriching the functions of computer software in transfer learning.

#### **4.3 Innovative application of migratory learning computer software in large data stream**

Transfer learning computer software has more and more influence on economy and public life, but it needs further innovation and development in the era of big data. At the same time, the operation of the technology will be affected by many factors, facing many difficulties. At the same time, in the era of big data, the data is more cumbersome, and it is easy to have some problems when using links and storing data. In addition, under the flow of large data, the development of computer software for transfer learning has good prospects, and further research is needed in specific innovation. Therefore, the relevant staff should improve the computer technology, fundamentally solve the problem, so that computer software technology can play a greater role in this era of big data.

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