# A Collection and Retrieval of Intelligent Teaching Data for Higher Vocational Finance and Economics Major Based on External Data Interface Optimization

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Abstract: Firstly, it analyzes the requirements of the high-speed data transmission system, and then gives the design scheme of the bridge chip based on PCI EXPRESSS, including the logic design block diagram, interface description and bus timing. Higher vocational finance and economics majors mainly train high-skilled professionals in front-line management and service, and their professional characteristics of management and service put forward unique requirements for students' operational skills, professional ability and comprehensive quality. Aiming at the current teaching status of this course and some problems in the teaching process, under the guidance of the virtual learning situation teaching method, the corresponding solutions are put forward through the task-based teaching of the course knowledge points. Different from full-text crawling, distributed directional crawler requires fast crawling of deep and precise structured data from the Internet.

Keywords: Intelligent Teaching Data, Higher Vocational Finance, Economics Major, External Data Interface Optimization

### 1. INTRODUCTION

With the increasingly complete computer basic theory and the continuous expansion of software functions, the application of database technology has been very extensive, and it can be said that it has penetrated into all aspects of our life and all walks of life in society [1]. Establishing a relatively independent practical teaching system is not only a feature of higher vocational education, but also a requirement of higher vocational education. The higher vocational majors of finance and economics are limited by various subjective and objective conditions, and the construction of the practical teaching system is relatively lagging behind [2].

However, it is also noted that the acquisition, cleaning and processing of Internet data are at the bottom of the entire processing process and play a pivotal role [3]. The quality of the data source can often determine the value of the data. Especially for Internet data, the acquisition of data needs to face a variety of sites, and hierarchical teaching is "student-oriented" to meet the development needs of students at different levels [4].

For other students, it can be recommended to companies in the name of UF New Road. The society's demand for financial and financial talents is diverse, but the same school financial and economic majors do not. The integrated teaching mode of teaching is to integrate theoretical teaching and practical teaching, so that theoretical knowledge and practical operation ability are better connected [5]. Teaching while doing, students learning while doing, so that students in "learning by doing, learning by doing", teaching and doing in one, so that theory and practice teaching at the same time [6].

MATLAB is a fairly complete system. It provides users with a fully functional integrated environment for programming and data processing, using the built-in functions and a large number of toolboxes it provides, even without external software. It can also do almost any job [7]. TMS320F2812 is a new generation of DSP processor specially designed by Texas Instruments (TI) for industrial applications. Its

performance is much better than the current widely used TMS320LF240x series. The chip is a 32-bit fixed-point DSP, the highest frequency is 150MHz, the minimum instruction cycle is 6.67ns, the external low-frequency clock is used, and the frequency is multiplied by the on-chip phase-locked loop. Statistics is an activity to investigate and study the equivalent of objective facts [8].

The result of statistical work is statistical data, also known as statistical information. We encounter a large amount of data every day in our lives [9]. The bus is constantly evolving, and its history can be roughly divided into three generations. The first-generation bus includes and bus. The bus is based on the motherboard hardware resources such as processors and other components, resulting in different bus signal functions and timing. Therefore, the first-generation bus is not very versatile. Some require manual configuration [10]. At the same time, because the slot is inside the computer, the installation is troublesome, and it cannot electromagnetically shielded in places with strong electromagnetic interference.

RS232 and RS485 buses belong to the category of serial buses, which require less signal lines and low cost, but the transmission speed is relatively slow, 20Kb/s and 10Mb/s, respectively [11]. The function is very powerful and the operation is simple, which can help users to easily establish a database application system. At present, most of the finance and economics majors for higher vocational colleges have set up the course "Access Database Technology" [12].

Compared with the majors of engineering and agriculture, which mainly aim at cultivating front-line management-oriented and service-oriented talents in the tertiary industry, the majors of finance and economics in higher vocational colleges are mainly aimed at cultivating senior technical application talents in the primary and secondary industries [13]. Its professional liberal arts tendencies are very obvious, influenced by teaching concepts [14]. The most primitive Google crawler consists of five functional components. Initially for URLserver to read URLs from a file and submit

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them to multiple crawler processes; each crawler process is located on close to 300 different machines, and each process crawls web pages concurrently from the web using single-threaded and asynchronous IO [15].

Then the crawler will transfer the captured web page to the StoreServer process. For students majoring in finance and economics in higher vocational colleges, whether to implement hierarchical teaching, and answering the graduation certificate, the students can get this Before the question [16], let's look at a few sets of numbers: 301 students majoring in finance and accounting in the 14th grade of the college can obtain the undergraduate graduation certificate of the self-study examination attached to the provincial self-examination committee and the main examination institution [17].

### 2. THE PROPOSED METHODOLOGY

## **2.1** The External Data Interface Optimization

The calculation engine of MATLAB provides some interface functions. Using these interface functions, users can call MATLAB in the way of calculation engine in their own programs. Since the physical layer adopts bit coding, the effective bandwidth of the link is, so the effective bandwidth in both directions can be reached. So the total bandwidth of the entire link is equal to multiplying the number of channels. Then the number of channels is the bandwidth, and the peak bandwidth of the link can be reached locally. As the digital processor of the data acquisition system, FPGA mainly completes the logic control and data transmission of peripheral devices. The corresponding programs are divided into five parts: initialization module, AD control module, preprocessing module, SRAM read-write module and data transmission module. Another way to call MATLAB from programs in other languages is the MATLAB compiler.

The server side is configured as the core. The core implements the functions of the physical layer, data link layer and transaction layer of the bus architecture. Static test experimental scheme: The measurement range of the full scale of each channel is evenly divided into several points, and each point corresponds to a voltage signal output by the constant voltage source. By comparing the display voltage with the input voltage, the characteristic indicators such as linearity, repeatability and sensitivity of the system are obtained through analysis. Because MATLAB has powerful data processing and visualization functions, as well as toolboxes for various specific application fields, users can use MATLAB to quickly develop applications that can be directly delivered to users. Due to the short production cycle and low cost of the two-layer circuit board, the sensor channel type can be added or changed according to the application requirements, such as adding an ICP sensor channel that is not available in the ADS1274 version. But it is worth noting the anti-interference processing connected with the motherboard.

# 2.2 The Intelligent Teaching Data of Higher Vocational Finance and Economics Major

Because students majoring in finance and economics are relatively weak in computer, without any programming foundation and project experience, it is difficult to accept database knowledge. Many students are not very interested in learning this course, and the teaching content is difficult for them. The teaching plan, course offering, and teaching content

of finance and economics majors continue to follow the undergraduate model to a large extent. It fails to reflect the characteristics and requirements of higher vocational education, the proportion of theoretical teaching is too large, and the content of experiments, practical training and class hours are too small.

First of all, it is necessary to focus on the development of professional courses integrating teaching and doing, through the process of curriculum remodeling and integration, to promote teachers to update teaching concepts, innovate teaching methods, improve teaching level and practical operation ability, and promote teachers' comprehensive improvement of theoretical and practical skills. Establish the correct teaching concept. The basic idea of statistics is to extract a part of individuals from the population (a sample of the population), and to estimate and speculate the properties of the population according to the properties of the samples. The effective development of practical teaching activities is inseparable from the corresponding teaching materials and materials. In addition to the rich and complete accounting courses, the experimental (practice) teaching materials of finance and economics courses are difficult to find publicly issued experiments (practice) for other courses. Textbook. Data cleaning mainly checks the consistency of data, whether the data is legal, and handles invalid and missing values. In this system, processing nodes such as news SimHash deduplication, removal of all HTML tags, and deletion of missing value records are provided by default.

### 2.3 The Collection and Retrieval of Intelligent Teaching Data

Carrying out teaching reform is the only way to build a practical teaching system with the characteristics of finance and economics. Finance and economics majors need to be guided by the theory of higher vocational education, and radically reform the curriculum system and teaching content. The subject headings are consistent with the conceptual system under the professional field and can represent all aspects of the professional field. Compared to other text affinity comparison algorithms, this algorithm can compare the similarity between phrases, which is very beneficial for news pages (without knowing the content length). In terms of teaching content, according to the training objectives of each professional, outstanding students of each professional teaching body will make them realize their potential.

#### 3. CONCLUSIONS

For education skills from the perspective of the functional translation theory, we must fully understand the author's writing intentions, combine the era background of the original text, and grasp the central outline thought embodied in the full text. Teachers themselves should also strengthen further study and continuing education to improve their professional level. In-class learning is an extension and flexible application of micro-video learning. Students with different foundations independently review and consolidate the relevant word blocks around the topic according to their needs, so as to clear the obstacles of students' topic writing and effectively improve the students' writing level.

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