

# iOS and Android Platform Development of Korean Professional Application-Oriented Talent Training Platform Based on Multi-Dimensional Information Transmission Algorithm

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**Abstract:** iOS and Android platform development of Korean professional application-oriented talent training platform based on multi-dimensional information transmission algorithm. Firstly, we consider the data security of the system. When the application executes the sensitive operation, the policy executor will request the security policy from the security decision center. If the security policy contains restriction rules for the sensitive operation, the security decision center instructs the policy executor to carry out corresponding permission control and security operation. It is necessary to first perform static analysis on the Android application specified by the user to obtain all sensitive API calls and dangerous permission requests involved in the application; then convert the obtained information into policy points, and decide whether to agree or not by operating the policy points. Dangerous requests from applications and more fine-grained API calls. With these technologies, the professional application-oriented talent training platform is implemented. Through the verification, the efficiency of the platform is tested.

**Keywords:** iOS and Android; Software Optimization; Talent Training Platform; Multi-dimensional Information; Data Transmission Algorithm

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## 1. INTRODUCTION

Since the early days of computer-aided teaching, we have actively introduced computers and also related information technology products into the classroom [1, 2, 3]. The first is the computer-assisted teaching system, including the computers, projectors, large screens, amplification equipment and central control systems. Due to the introduction of these devices, media such as the text, audio, video, animation, etc. [4, 5, 6] can be conveniently assembled, which provides great convenience for teachers to teach. Education informatization is a process of in-depth integration of the information technology and various elements and links of the education system to promote the harmonious development of education. The development of information technology has then gone through the stages of digitization, networking, and intelligence.

After education informatization 1.0 basically solved the problem of the digitization, education informatization 2.0 will focus on exploring the deep integration of general networking, intelligent technology and education and teaching [7-11]. Therefore, "Internet + education" and "artificial intelligence + education" are different manifestations of education informatization 2.0. In the field of public services, especially in the field of higher education, the influence of the general Internet has become increasingly apparent, and the various Internet-based teaching innovations such as the MOOCs and flipped classrooms have emerged one after another. This research will focus on the impact of the Internet on college teaching and how colleges and universities should carry out teaching innovation in the "Internet +" era [12]. Accordingly, the figure 1 shows the online information analytic framework.

In the designed methodology, the IOS and Android will be selected as the analytic platforms. iOS is developed by Apple

and is mainly used as an operating system for the mobile handheld devices such as iPad, iPhone, and iPod touch. iOS has an easy-to-use interface, amazing features, and also great stability [13, 14, 15]. Many technologies built in iOS provide a system platform for designing and developing personalized mobile learning resources. The system is developed and implemented based on the Mac system server side and the iPhone mobile terminal, using the C/S architecture to run, and establishes a TCP connection between the server and the mobile terminal through Socket sockets for communication. On the other hand, the Android is also essential. Because Android phones already have a SQLite database installed, for some small stand-alone software development can use it for basic data processing. SQLite has been widely used in mobile platforms due to its lightness, but its data processing ability and transaction operations are inferior to server databases.

As mentioned earlier in this article, the server's database pre-processes the data and then hands it to the Android phone to do its job. Hence, in the next sections we will be based on platform integration model to propose the designed method.

## 2. THE PROPOSED METHODOLOGY

### 2.1 The Android System Structure Model

The Android system architecture adopts the idea of a layered architecture, with a clear architecture, distinct layers, and collaborative work [16, 17, 18]. It can be divided into four layers from top to bottom, namely the application layer, the application framework layer, the system library and the Linux kernel. The model will evaluate the credibility of Android software, which is divided into two stages: training and credibility evaluation. In the training phase, the software measurement is mainly completed to determine the four essential attribute evidences of the software, which are used in the training data set of SVM; in the credibility evaluation

phase, classification probability assignment corresponding to each attribute evidence is then first determined according to the trained classification model. Then, the adaptive weight is determined based on the entropy weight method, and then the evidence synthesis of each attribute is realized by using the improved DS evidence theory.

Where the  $k$  is the core parameters. In order to solve the problems of low test coverage and low test efficiency of fuzzing, it is necessary to infer the numerical conditions that the input needs to satisfy in advance. This requires the use of symbolic execution techniques and constraint solving techniques, which have not been widely used due to the large number of the general operations involved [19, 20, 21]. However, Android applications generally have a small amount of code, which can meet the computing requirements of the above technologies under the existing computing performance. Therefore, it is necessary to study the directional fuzzing technology based on symbolic execution and reachable path analysis to improve the efficiency and coverage of fuzzing testing.

## 2.2 The iOS Platform with Multi-dimensional Information Transmission Algorithm

CFNetwork framework is a C language library, which is based on BSD sockets and provides an abstraction of network protocols. These abstractions make it easier for the users to manipulate sockets and handle the various connections to the network. It integrates run loop, so using cfnetwork does not need to implement event loop by itself [24, 25, 26].

CFnetwork also includes the implementation of some network protocols, which can be then used directly without understanding these protocols. Another powerful library is foundation framework, which is based on general Objective-C language. It defines a set of underlying general functions for Objective-C language and provides object-oriented abstraction for cfnetwork API. It is a component often used in software development. The special information body structure can then easily integrate additional information including control instructions into the data package body. For the application of multiple field devices, the corresponding control instructions can be designed as information bodies with different numbers, and the field terminal can analyze the information.

The corresponding numbered information body can obtain the control instruction of the corresponding field device. This process is also the visual representation and modeling stage of the functional framework of the previous stage. It can deeply judge the rationality and feasibility of the general functional framework in the process of drawing the interface and the plane expression of the functional elements, and then give a modification plan. Continue to filter out the functions most commonly used by core users and most suitable for mobile application scenarios.

Using iOS mobile learning technology, we design and develop micro-course learning resources based on the mobile handheld devices to then help the learners use scattered and fragmented time for mobile learning, form a general powerful supplement to the formal learning form of classroom teaching, and improve learning efficiency as well as ensuring continuity of learning beyond the classroom [27-29]. Considering the number of users and the scope of use, the classroom real-time feedback system designed in this paper realizes the communication between the client and the server through Wi

Fi technology, and also designs and implements a complete communication protocol stack based on TCP / IP protocol to complete the communication function between the client and the server. TCP / IP protocol is the most basic protocol of Internet and the basis of Internet. It is composed of IP protocol of network layer and TCP protocol of transport layer. TCP / IP defines how electronic devices connect to the Internet and how data is transmitted between them. The protocol adopts a four layer hierarchical structure, and each layer calls protocol provided by its next layer to complete its own requirements. In the figure 5, the pipeline is demonstrated.

## 2.3 The Korean Professional Application-oriented Talent Training Platform

In terms of the general foreign language education and teaching methods, teachers must have a set of their own education system, so that students can grasp the subject ideas during learning, and also learn systematic knowledge during the learning, gradually accumulate, and expand from simple to complex step by step knowledge. The starting point of all teaching activities is students. Only by grasping the main line of students can we find the meaning of teaching reform and grasp the direction of teaching reform. Starting from the actual level of students, highlight the student-oriented, and create a teaching system integrating "theory + skills", so as to further clarify professional orientation and improve the professional ability of students. Professional core courses are related to the entire professional development and student development, and skill practice courses are the main position for students to improve their professional skills. To apply, to use to promote learning, to form a complete teaching system.

A complete education and teaching system can then make students learn Korean more ideally, and the penetration of the cultural education can allow students to understand Korean culture in combination with the actual related content when learning Korean, and help students learn Korean better under the systematic education system teaching method. Teachers are not only the implementers of Korean teaching, but also the instructors of students in the process of the learning Korean teaching. Therefore, the teachers must find ways to infiltrate teaching activities into general cultural education, so as to then continuously improve students' professional ability and the knowledge level of Korean teaching content, and have a good understanding of Korean cultural background.

Therefore, teachers should have a solid foundation of the Korean culture and deeply infiltrate Korean culture in the teaching process, Highlight the penetration of the culture in education. Furthermore, the Internet issues should be then considered. In the design stage of teaching evaluation, a "diversified" mixed teaching evaluation mode combining procedural evaluation and summative evaluation is adopted to make value judgments on the teaching process and results according to the teaching objectives and serve for teaching decision-making. Process evaluation is completed through attendance, homework, experiment, test, discussion and other forms, while summative evaluation is mainly completed through examination. The Internet has changed the teaching scene, teacher-student relationship and teaching process of the college teaching, but it has not changed the essence of college teaching, which is embodied in: First, the nature of teaching emphasizes that teaching requires the participation of teachers and students, and the Internet has put forward more requirements for teachers. Second, the nature of the teaching emphasizes efficient interaction and two-way information exchange between teachers and students, and the Internet only

provides a more efficient and easy-to-use means of interactive communication.

### 3. CONCLUSION

iOS and Android platform development of the Korean professional application-oriented talent training platform based on general multi-dimensional information transmission algorithm. As mentioned above, previous research is helpless at this stage, and can only regenerate security policy instances for new security requirements and re-inject them into applications, and then install new applications on users' devices. Hence, by considering the novel platform, the designed Korean professional application-oriented talent training platform based on the general multi-dimensional information transmission algorithm is implemented. In the future, we will apply this system into the real applications.

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