

## Research Article

# Social Work Management Intelligent System Based on Improved Genetic Algorithm

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With the continuous development of society, social work is gradually professionalized, and relevant service fields are also growing. However, the limited resources of social work activities and the different needs of service projects are also more prominent. The intelligent management concept can assist social work services, thus providing fresh vitality for the field. How to effectively apply this vitality to the actual work process and form a unique intelligent management mode of social work service has always been the core issue of the sustainable development of social work specialization. Intelligent social work management is a new development trend. Based on this background, in this paper, a class of the intelligent social work management system is designed. The core technology of this system is an improved genetic algorithm. The system design is generally divided into four modules, and each module has different functions, including user-level acquisition module, intermediate acquisition module, load balancing module, and platform-level data storage and analysis module. Through the design and test, after the design simulation experiment test, it can be known that the system can effectively complete the design objectives, solve practical application problems, reasonably complete the work tasks, and meet the needs of users. In addition, the application of the system can improve the efficiency and management of social work services. Finally, this paper makes an in-depth analysis of the problems existing in the field of actual social work management and proposes corresponding solutions on this basis. In this study, an improved genetic algorithm is combined with social work management, and an effective intelligent management system is designed to realize work assistance.

## 1. Introduction

At present, the social work environment in China is changing faster and faster. With the continuous professional development of social work, the actual demands of its service objects for social work services are constantly improving [1]. Therefore, the traditional concepts and related technologies cannot meet the increasing actual demands and service needs of customers under the new situation [2]. Social work organizations need to strengthen the full integration of resources, carry out activities with characteristics, timeliness, and innovation so that services can move from the grass-roots level to a higher level, achieve qualitative change, and provide support for the rapid and healthy development process of social work organizations [3]. Based on this

background, the paper created the research topic of social work service intelligent management. For a long time, the development of social work has been affected by professional and administrative issues. Professional and administrative issues are only two one-sided focuses of social work services [4]. The use of social service intelligent management can provide an effective solution to this problem. First, the application of intelligent technology in social work management will have an impact on the management of social work organizations. Through intelligent management, resources can be effectively integrated to achieve effective management of working organizations [5]. Second, the use of intelligent management of social work services can win more room for progress in the development of social work. Applying intelligent management techniques and concepts

in the actual social work service process can have a significant impact on social work practice [6]. Therefore, this study will systematically explain the knowledge of social work service and intelligent management and try to prove the positive role that intelligent management theory can play in the practical work application process and the inevitable trend of using this technology. Therefore, this study builds a kind of the intelligent social work management system. The core technology of the system is the improved genetic algorithm. The system completes a three-layer system design by applying the concept of the improved genetic algorithm. They are user interaction layer, application service layer, and infrastructure floor. By introducing the concept of intelligent management and relevant methods, this system helps to improve the actual impact of social work services and is committed to improving the management efficiency of social work services and improving its development environment, assisting social work services to develop in a better direction. Through the research on the intelligent management of social work, this study is expected to promote the intelligent management technology to be widely recognized and applied in social work services, so as to promote the good and healthy development of social work specialization.

## 2. Relevant Work

A kind of the multiobjective genetic algorithm is designed for the identification of noninferior files in the literature. This algorithm can deal with the practical problems of multiobjective optimization that cannot be handled by traditional algorithms and avoid falling into the local optimal value in the calculation process, so that the global optimal solution can be obtained by further calculation [7, 8]. The literature uses the abovementioned algorithm to solve the multiobjective optimization problem in the weight distribution process and obtains the global optimal solution, which is input as the initial value of the population and completes further calculation processing, including population mutation, selection, and crossover [9]. In the literature, a class of optimized multiobjective genetic algorithms was designed, and the idea of information entropy was added in the design process. Based on the comprehensive information entropy in the literature, this algorithm is based on nsga-2. After improvement, it can obtain the technical value and cluster value of the population based on the specific target, so as to obtain the information entropy value

of the overall population, and input it into the calculation as a factor that changes the probability of crossover and mutation, so that it can control the convergence of the population and obtain the optimal value [10, 11]. The main objectives of the business system domain model are formulated in the literature, and the logic of the business system domain model and the main business system domain model and the relationship and media between the business system domain model and other data are designed [12]. Then, the information processing model and main domain model of the domain model are designed, and the relationship between this domain model and other domain models is explained. This literature has designed a collaborative management platform with Microsoft products, completed tool configuration by integrating relevant technologies, and completed the construction of the business process management system platform by combining SQL server database network-related technologies, web service technologies, network technologies, and so on [13]. Through simulation experiments, its effectiveness is tested. From the results, it can be seen that the system can safely transmit the business information generated in each link, realize the “coordination bridge” of data-related businesses, and promote the resource sharing and interaction between related businesses [14].

## 3. Improved Genetic Algorithm

*3.1. Principle of Genetic Algorithm.* The genetic algorithm (GA) was first proposed in 1975. It is a search method derived from the thinking and research type of “natural selection and survival of the fittest,” which is the law of reproduction and evolution in the biological world. The genetic algorithm simulates gene crossover and gene mutation in biological reproduction. Evolution starts from a predetermined initial population according to the strategy.

Optimization problems are usually divided into two categories, namely, finding the minimum value of a function in a specific target domain; the maximum value of the function was found in the specified target domain. There are two basic methods to convert the target value of a point in the problem feasible solution space into the fitness corresponding to that point as follows:

- (1) Select  $F(x)$  to represent the objective function value, and its fitness value can be represented by the following:

$$\text{Fitness}_x = \begin{cases} F(x) & \text{"Find the maximum value of the objective function",} \\ -F(x) & \text{"Find the minimum value of the objective function".} \end{cases} \quad (1)$$

(2) Let  $C_{\max}$  be the maximum value of  $F(x)$  and  $C_{\min}$  be the minimum estimate of  $F(x)$ .

$$\text{Fitness}_x = \begin{cases} C_{\max} - F(x) & F(x) < C_{\max}, \\ 0 & \text{other,} \end{cases} \quad (2)$$

$$\text{Fitness}_x = \begin{cases} C_{\min} + F(x) & F(x) > C_{\min}, \\ 0 & \text{other.} \end{cases} \quad \text{"Find the maximum value of the objective function"}$$

Design the penalty function method as follows:

$$F'(X) = \begin{cases} F(X) & \text{When X satisfies the constraints,} \\ F(X) - P(X) & \text{When X does not satisfy the constraints.} \end{cases} \quad (3)$$

In Equation (3),  $F(X)$  is the initial fitness value of the quasi-feasible solution,  $F'(X)$  is the fitness value after considering constraints, and  $P(X)$  is the penalty function under the strategy.

Let the training point set  $L$  be the training set as follows:

$$T = \{(x_1, y_1), \dots, (x_L, y_L)\},$$

$$y = \text{sgn}(x). \quad (4)$$

Suppose there are two different types of data objects and their distribution is shown in Figure 1. All particles in the thick black line between the endpoints  $a$  and  $b$  of the horizontal axis are considered to be of the positive class, and the particles are on either side of the thin black line of the negative class. In this case, it is obviously impossible to meet the conditions, but we can find a quadratic curve similar to Figure 1 (find a random point on the horizontal axis, calculate the function value of this point, and it can be seen that the function in the positive category points must have values greater than 0 and negative category points must be less than 0).

This curve is a quadratic curve, and its function expression can be written as follows:

$$g(x) = c_0 + c_1x + c_2x^2. \quad (5)$$

Figure 2 shows two kinds of data demarcated by quadratic curve.

The most widely used kernel function Gaussian radial basis function kernel (RBF kernel) in SVM classification is defined as follows:

$$K(x, x') = \exp\left(-\frac{\|x - x'\|_2^2}{2\sigma^2}\right). \quad (6)$$

Real polynomial kernel function is as follows:

$$K(x, x') = \frac{(1 - (x \cdot x')^q)}{(1 - (x \cdot x'))}. \quad (7)$$

Among them,  $(x \cdot x')$  satisfies  $1 < (x \cdot x') < 1$ .

Complete polynomial kernel function is as follows:

$$K(x, x') = \left(\frac{(x, x')}{a} + b\right)^q. \quad (8)$$

**3.2. Model Establishment.** Let the chromosome be expressed as  $X = (X_1, X_2, \dots, X_m)$ , where  $m$  is the length of the chromosome, that is, the number of decision variables in the target problem and  $F(x)$  is the target function. According to the knowledge of mathematical theory, we know that the extreme point has some characteristics as follows: (1) for a general smooth continuous function, the closer it is to the region where the extreme point is located, the derivative of the point tends to 0; (2) the function value of the extreme point is usually larger or smaller than the function value of the surrounding points. For an  $m$ -dimensional objective function, the fitness component  $i$  and the total fitness can be calculated by the following:

$$\text{Fitness}_i = e^{-|\vec{x}_i|}$$

$$\text{Fitness} = \sum_{i=1}^m \text{Fitness}_i. \quad (9)$$

According to the knowledge of mathematical theory, we know that the extreme point is the stagnation point of the multimodal function, and the derivative of the stagnation point is zero.

In the  $t$  generation, the  $i$ th gene locus of the mother is defined as  $x_i(t)$ , and the  $i$ th gene locus of the father is defined as  $y_i(t)$ , and the relationship between the children's genes and the parents' genes is as follows:

$$x_i(t+1) = \alpha x_i(t) + (1 - \alpha)y_i(t),$$

$$y_i(t+1) = \alpha x_i(t) - (1 - \alpha)y_i(t). \quad (10)$$

The individual chromosome in the multimodal function is represented as  $X = (X_1, X_2, \dots, X_i, \dots, X_n)$ ; when the  $i$ th locus moves, the current individual chromosome is

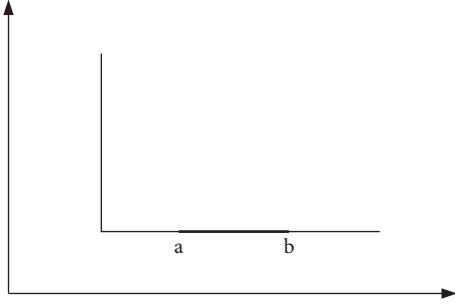


FIGURE 1: Complex nonlinear separable case.

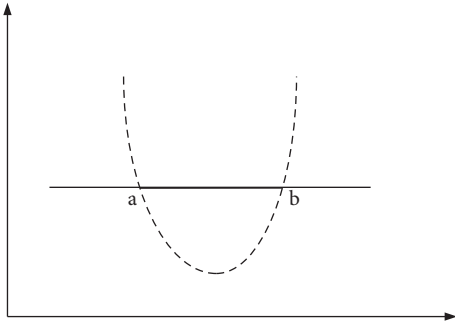


FIGURE 2: Two kinds of data with quadratic curve as the boundary.

represented as  $X = (X_1, X_2, \dots, X_i, \dots, X_n)$ ; the relationship between  $x_i'$  and  $x_i$  is determined by equation as follows:

$$x_i' = \begin{cases} x_i + \Delta(\text{Fitness}_i) & \text{"In the same direction",} \\ x_i - \Delta(\text{Fitness}_i) & \text{"Otherwise".} \end{cases} \quad (11)$$

**3.3. Algorithm Improvement.** In multiobjective problems, each objective may have different units, such as the problem of maximizing the revenue in the shortest time, the revenue unit is yuan, and the time unit is hours. Therefore, these target values need to be combined into a similar normalized form. For each target, there is a certain

range of values. The maximum value of the target  $k$  is denoted as  $\max f_k$ , and the minimum value is denoted as  $\min f_k$ . Let the normalized interval be  $[a, b]$ , then the normalized function becomes

$$\varphi_k(X) = a + \frac{f_k(X) - \min f_k}{\max f_k - \min f_k} \cdot (b - a) \quad k = 1, 2, \dots, r. \quad (12)$$

It can be proved that the optimal solution set of the normal function corresponds to the optimal solution set of the original problem.

In the weighted sum method, each objective of the multiobjective function is multiplied by a coefficient  $w_i$ ,  $w_i \in [0, 1]$ , and the sum of all coefficients is 1, that is,

$$w_1 + w_2 + \dots + w_r = 1. \quad (13)$$

Adding all the objective functions with coefficients to make it a single-objective function, the model of the transformed problem becomes

$$\text{Minimize } F(X) = \sum_{i=1}^r w_i f_i(X). \quad (14)$$

The optimal point of the modified single-objective optimization problem is the noninferior optimal front-end point. The verification process is as follows.

Each objective of the optimization function has a maximum value and a minimum value, that is, if the multiobjective problem requires the subobjectives to be as small as possible, each objective has a minimum value within the feasible solution range, that is, similar to the maximum value. As mentioned above, the multiobjective problem can be decomposed into multiple single-objective problems, and then the minimum value of the single-objective function can be calculated to obtain  $(X', (X'))$ , which satisfies the following:

$$\text{Minimize } F(X) = w_1 f_1(X') + w_2 f_2(X') + \dots + w_r f_r(X'). \quad (15)$$

There are inequalities as follows:

$$w_1 f_1(Y) + w_2 f_2(Y) + \dots + w_r f_r(Y) < w_1 f_1(X') + w_2 f_2(X') + \dots + w_r f_r(X'). \quad (16)$$

For the same kernel function parameter value, the classification hyperplane corresponding to the penalty factor in an interval has the same classification accuracy, and a step-by-step evolution strategy can be used.

The entire evolution process of the improved genetic algorithm for the SVM parameter optimization problem is carried out in two steps. First, it is necessary to find the variable combination corresponding to the highest classification accuracy, which is expressed as the combination of penalty factor and kernel function parameter. There are many combinations of these combinations, and these combinations can be migrated to other locations to form

new breeding populations. The second stage of work is to cultivate excellent breeding populations. The task is to achieve the evolution of the penalty factor while keeping the classification accuracy constant. This is done by using the lower bound of the penalty factor and the current value of the penalty factor to create a small floating random mutation based on the range of change. Due to the particularity of the genetic strategy of the improved genetic algorithm proposed in this study, some filtering operations are performed on the individuals saved in the last evolution of the elite population, and the final individual is the optimal solution.

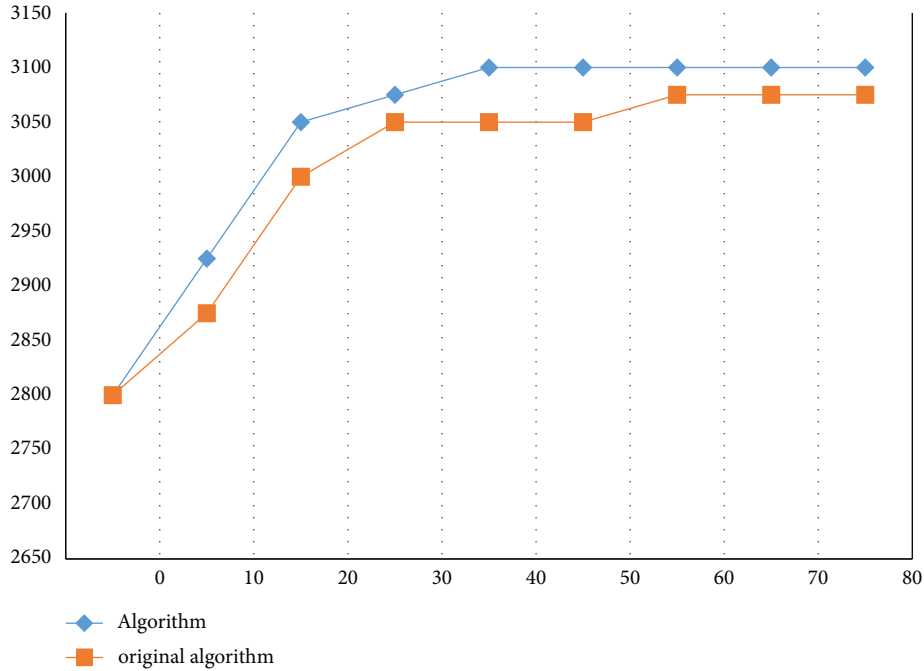


FIGURE 3: The comparison between this algorithm and the existing algorithms on the knapsack problem.

**3.4. Simulation Results.** This study proves that the improved coarse-grained genetic algorithm may be more suitable for cloud task scheduling by researching and improving the traditional genetic algorithm for two types of similar experimental data.

First, we conducted experiments on the knapsack problem between the algorithm in this study and the original algorithm. As shown in Figure 3, under the same problem environment, the optimization algorithm designed in this study has faster convergence speed and can obtain better solutions.

The second experiment is the comparison result of the task completion time between the algorithm in this study and the original algorithm, as shown in Figure 4.

It can be seen from the above experimental results that the algorithm in this study is superior to the traditional genetic algorithm in terms of task quality and task completion time.

#### 4. Design and Implementation of Intelligent System for Social Work Management

**4.1. System Requirements.** With the continuous development of society and the continuous increase of the scale of cities, in urban management, event management, security management, and population information management have become more prominent problems. The information age puts forward higher requirements for urban management, so it is urgent to build a modern management system [15]. To this end, the government decided to build an urban management information system to solve the actual problems of current urban management, gradually realize the refinement of urban management, meet the needs of data sharing, resource optimization, case evaluation, delivery,

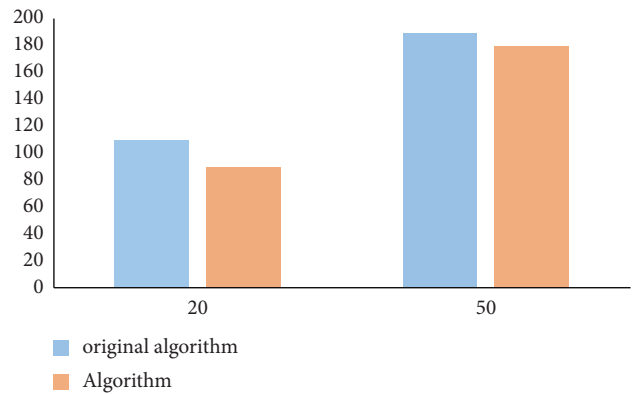


FIGURE 4: Comparison of the task completion time between the algorithm in this study and the original algorithm.

approval, verification, and so on, promote the informatization of urban management and efficiency, and promote the refined development of urban management [16].

- (1) Resident information management: establish grid areas in the city and buildings (buildings) in each grid area, divide the grid responsibility areas of each city, and designate appropriate grid leaders; grid leaders collect responsible areas, houses, organizations, and so on.
- (2) Urban civil administration functions: the grass-roots staff can provide processing and reporting of incident problems found during daily visits. In daily information collection and visits, grass-roots personnel can report residents' calls, neighbor disputes, city appearance and environment, and city management to the system platform through

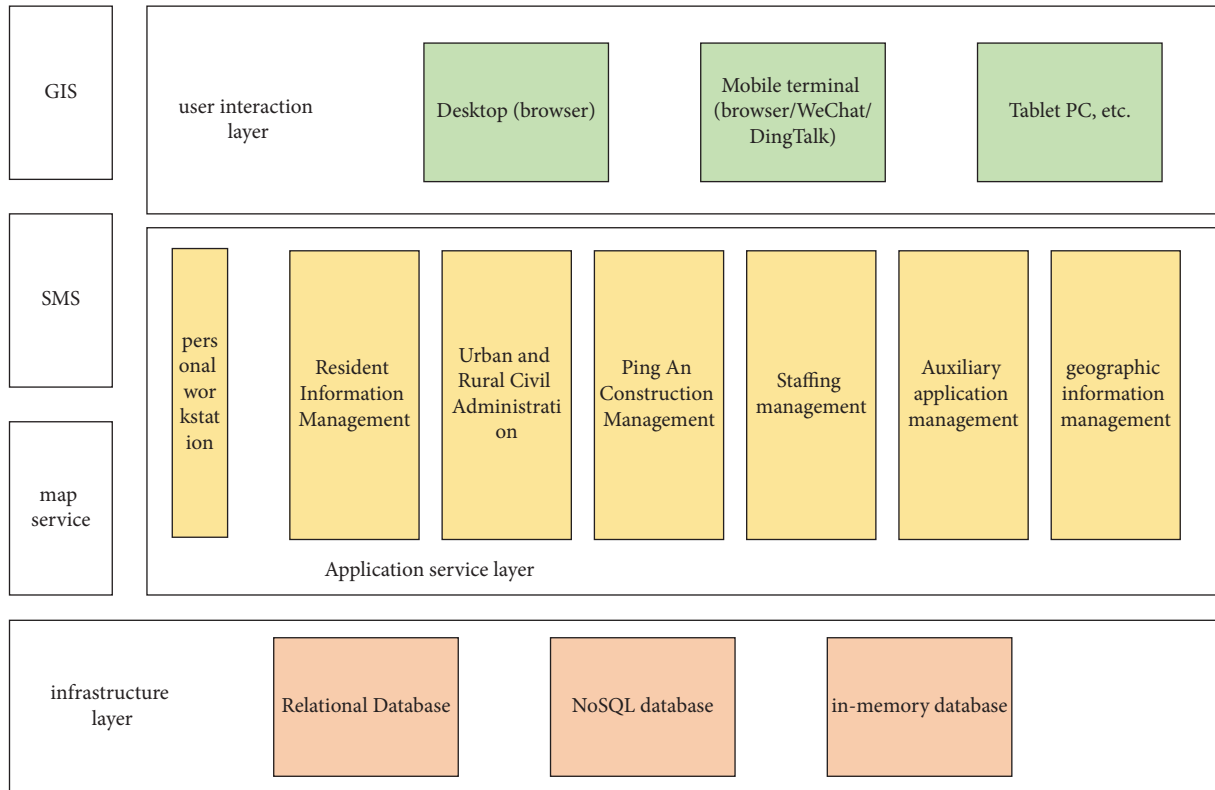


FIGURE 5: Architecture diagram of the social work management intelligent system.

mobile phones or computers. Special handling for other events occurs within the jurisdiction [17] whereas self-management issues are reported as being managed on a level-based basis. At the same time, for incidents reported and managed by grassroots staff, such staff are required to review the results before closing the case [18].

- (3) Ping a construction management obligations: report and inform the daily work of the grass-roots, city, town, street staff, and the political and legal committee. City and grass-roots staff register information on cases affecting social security in the network, so that the community political and legal committee can inquire about the situation at any time and record and report daily review data. This type of information is classified according to special groups and is divided into the following: released persons, urban correctional personnel, persons prone to mental accidents, drug-related persons, AIDS persons, cult organization personnel, key petitioners, key youth personnel, and persons carrying out dangerous goods and other activities.
- (4) Personnel management activities: record the information of comprehensive management agencies and agency members at all levels. The comprehensive management facilities are divided into the following: the comprehensive management committee, the comprehensive management office, the comprehensive management work center, and the

comprehensive management studio. Record information on members of mass prevention and mass governance bodies at all levels. Group defense management agencies are divided into the following: full-time patrols, volunteer patrols, security companies, volunteer teams, and so on.

- (5) Auxiliary executive function: grass-roots personnel report the activities of the previous day to the system platform in the form of the next day's log. Cities, towns, streets, and blocks can be sorted by the number of logs reported by city and grass-roots workers. Users in cities, towns, streets, and blocks can view the log content of each grass-roots employee. The work logs of grass-roots employees will be used as one of the indicators for evaluating grass-roots employees.
- (6) Geographic information management function: display information about people, places, organizations, and so on. Through the three-dimensional virtual map, the district grid, buildings, population, and other information are displayed through the district GIS map (2D).

For a system to achieve long-term success, on the one hand, it must provide complete functions and simple and elegant interactive pages, and on the other hand, it must ensure stable performance and simple operation. Only by combining the advantages of all aspects, the system can have

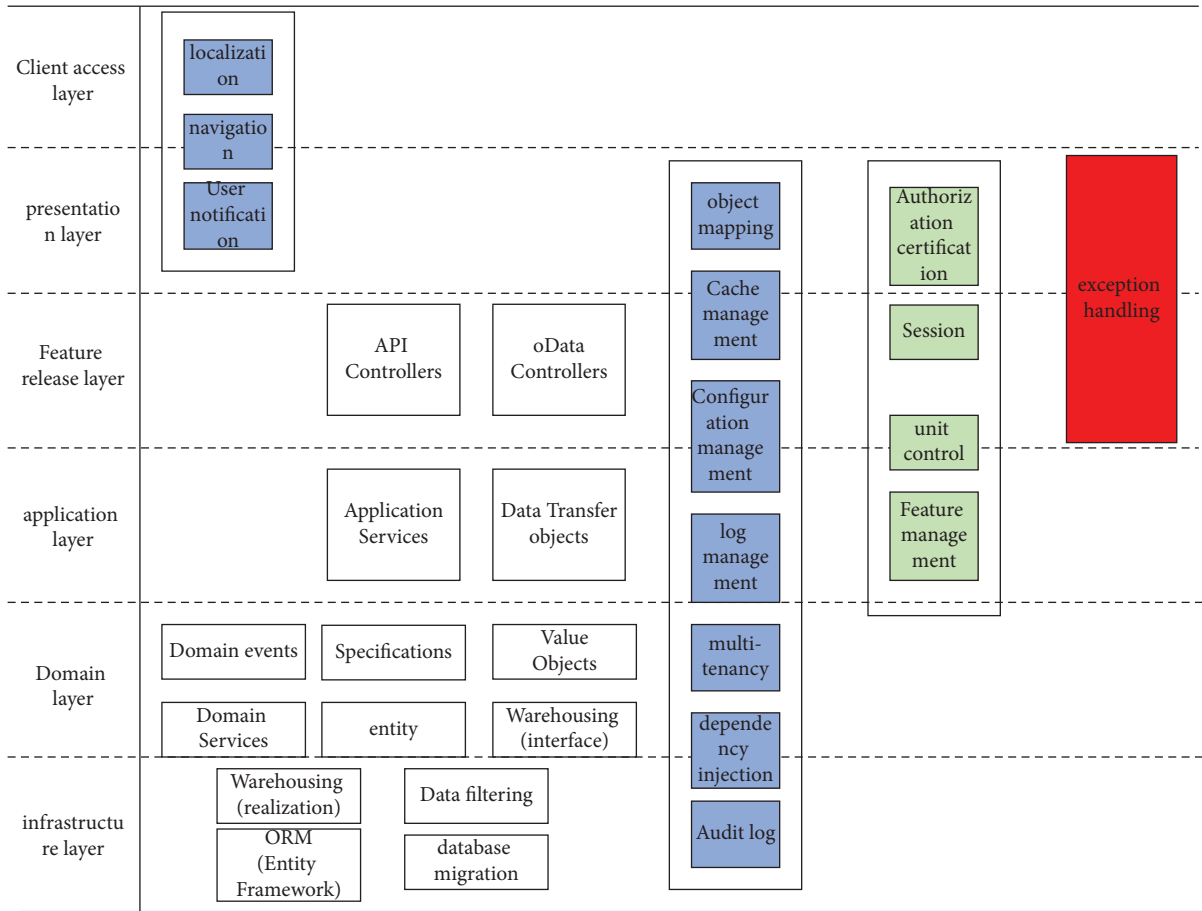


FIGURE 6: Technical architecture diagram.

a broad space for development and be welcomed and promoted by users. The following is a comprehensive description of the performance analysis of the urban management refinement system.

**4.1.1. Scalability.** To make the system have good scalability and extensibility, it is very important to develop the system framework. In the creation of the refined city management system, the overall development is mainly carried out with the help of the B/S architecture, which effectively ensures the “high integration and low coupling” of the system, making the system hierarchical and useable on many platforms. At the same time, it also allows the system to be connected with the outside through the interface, which promotes the development and expansion of the system.

**4.1.2. Reliability.** System reliability manifests itself in many different ways. On the one hand, it is reflected in the stability, maturity, and fault tolerance of the system. Generally speaking, maturity means that the system can maintain stable operation without frequent failures and provide users with stable and sustainable services; fault tolerance means that the system can automatically repair itself when minor errors occur, improving the stability of the operating system.

Recovery refers to the ability of a system to store, retrieve, and back up data and information. Achieving this performance guarantee has a large impact on user operations, reduces the occurrence of data and information loss, and reduces negative impacts.

**4.1.3. Security.** Security is a mandatory requirement for all systems. For a refined urban management system, its business activities and development will involve a large amount of resident data and city data, and data leakage will bring many adverse effects to residents and the city, so data security needs to be ensured. Under normal circumstances, when researchers build a system, they will perform system operations such as encryption, setting firewalls, permissions, and backup and implement a number of protection measures to defend against external attacks and illegal operations, maintain the security and stability of the system, and provide users with the most optimal simple operation guarantee.

**4.2. System Architecture Design.** First, the architecture diagram of the social work management intelligent system will be displayed through Figure 5.

The overall technical architecture of the intelligent social work management system follows the DDD method

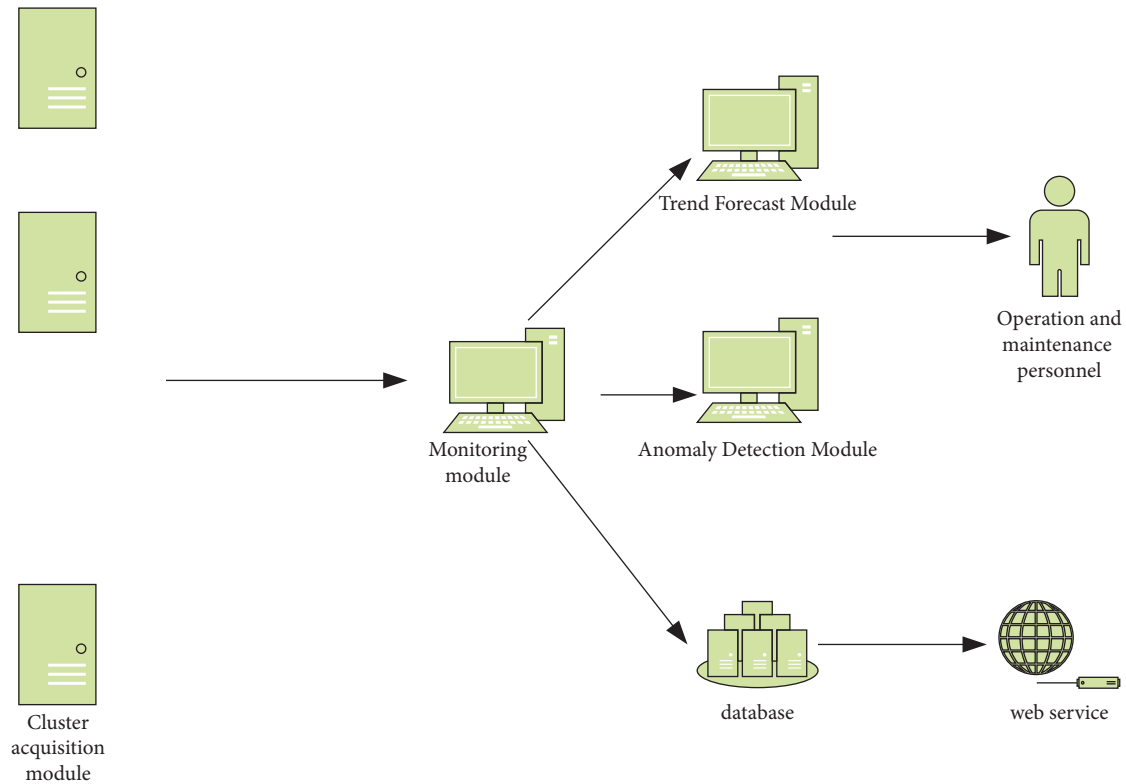


FIGURE 7: Framework diagram of monitoring system of social work management intelligent platform.

and adopts a 6-layer architecture design, as shown in Figure 6.

**4.3. Functional Module Design.** At present, the collection system of the intelligent social work management system can be divided into three modules, namely, the user-side collection module, the intermediate collection module, and the platform data storage and analysis module.

**4.3.1. User Side Acquisition Module.** This module is the original data entry module of the platform. It has tens of thousands of network devices installed on the user side and is responsible for collecting the actual daily network traffic of service network users. Every time a user accesses traffic, the device will report log information to the data platform, including timestamps, device IDs, visited websites, and other information.

**4.3.2. Intermediate Acquisition Module.** This module corresponds to an information transfer station, which is responsible for processing the information from the user side and then transmitting it to the platform side. The collection servers are distributed in computer rooms in different cities.

**4.3.3. Platform Data Storage and Analysis Module.** This module is responsible for further processing the online log information of the user equipment collected by the collection server and storing it in the nonrelational HBase

database. Finally, log files are analyzed and further processed by MapReduce and Spark jobs to meet business needs.

There are two flaws in the current network traffic collection system. First, there is no user-side monitoring and analysis of individual network devices. Currently, the system passively accepts information reported by users but does not actively analyze traffic types and device health. Second, user-side network devices in the same area will upload all log information to the same collection server, which may cause some problems. If all devices are in the same mode, they will be peaking at the same time, i.e., each device's traffic will be peaking at the same time. If all devices are in peak state, the acquisition server may encounter performance bottlenecks or even crash; on the contrary, if all devices are in a trough state, the acquisition server is in a low utilization state, wasting resources.

**4.3.4. Load Balancing Mode.** For common user network devices, by summarizing recent historical data, each device can obtain a corresponding time series curve, the time interval is 1 hour, and this value is the current Internet traffic of the device. K-means clustering is performed on all-time series, Manhattan distance is selected for similarity distance, 3 is selected for the number of cluster centers, and the model is updated every week.

The frame diagram of the monitoring system of the intelligent social work management platform is shown in Figure 7.



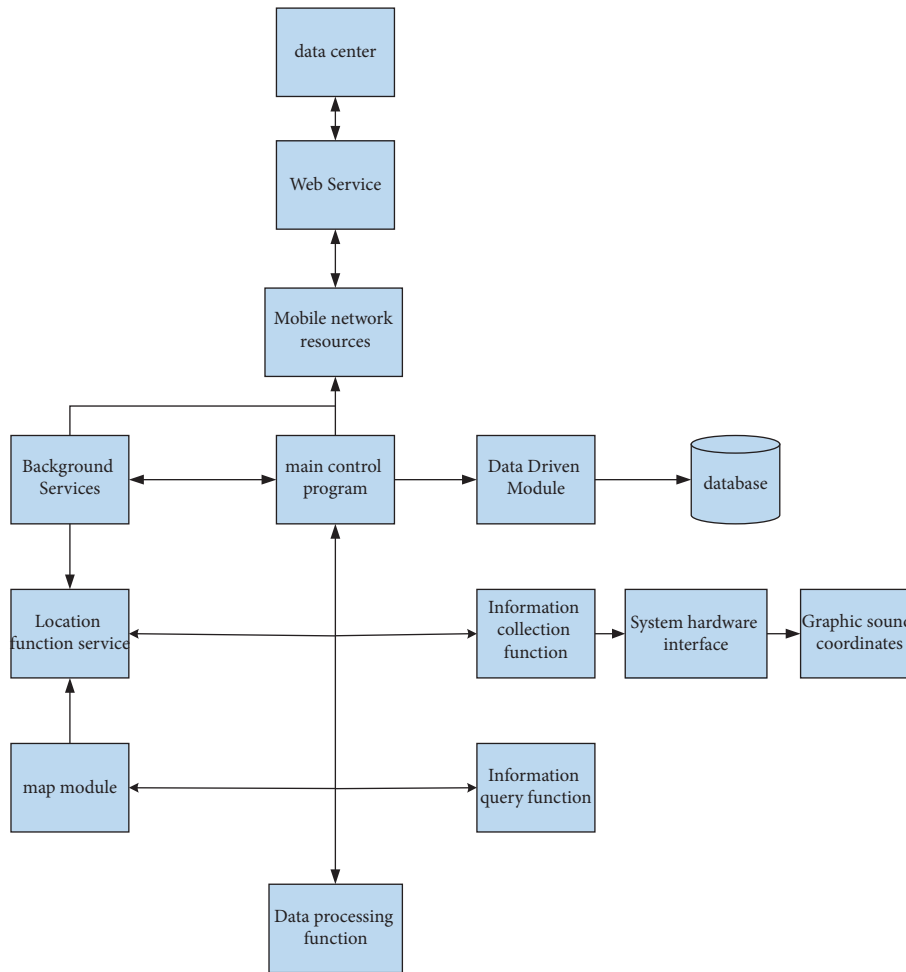


FIGURE 8: Overall design process of the wireless data acquisition subsystem.

The wireless data acquisition system mainly exchanges the collected valid information with the data center through Web services and audits and processes the information. The overall design flow of the wireless data acquisition subsystem is shown in Figure 8.

4.4. System Test. According to the system model, to provide effective information for urban management and related law enforcement, this study uses a certain proportion of data information as a test case to test whether the system meets the use standard, as shown in Table 1.

4.4.1. Pressure Test. By using the program testing tool that comes with Visual Studio.NET and by using the negative pressure testing tool to test the system website, you can record detailed program execution parameters and display the running status with icons, which is an ideal testing tool. According to the analysis of the test results, the system can judge the high-load operation and carrying capacity of the system, as well as the stability and reliability of the system. The system in this study has been tested with valid data for many times, and it has effectively realized the needs of users,

TABLE 1: Analysis of test results.

	Numbers	Proportion (%)
Number of test cases	100	100
Exact execution quantity	98	98
Inaccurate execution quantity	2	2

completed the daily work flow, and met the relevant standards of system users.

## 5. Social Work Management Development Strategies

5.1. Problems. It is not allowed for social workers to provide professional services to clients. Due to the nonprofit nature of social work, the development process cannot be without the support of the government. Social work services in China are largely paid for by the government. The government’s financial support has greatly promoted the rapid development of social work, but it has also made social work services subject to government orders. The development of “nanny-style” social work suffers from insufficient funding. The normal functioning of social work organizations and the development of social work services face some difficulties.

Social work services cover a wide range, including children, adolescents, the elderly, women, families, and the disabled. The positions of social workers are basically divided by field, which can provide services to the service objects more easily and directly, but this positioning method also increases management measures. In addition, some positions have obvious “administrative” characteristics, that is, social workers assigned to designated positions are affected by the working environment and cultural characteristics of the employer during the work process, thus weakening the professionalism of social work services.

Social work provides services in the form of individual counseling, group counseling, and targeted activities, generally providing professional and effective services to those in need. However, the services provided by the existing service methods are relatively independent. As social work-related concepts spread, people become more familiar with social work, and the corresponding needs for the services it provides are gradually changing from a targeted gradual transition to an ongoing systemic one. Social workers focus on the client’s needs, and the services they provide are no longer a simple supplement to many services but carry out continuous and systematic service activities according to the client’s classification.

*5.2. Development Strategy.* In the traditional multicenter governance model, the intelligent social work management system is only used as a government management tool and still cannot eliminate the unfavorable situation that the government completely dominates other subjects. Judging from the operation of a city’s intelligent social work management system, the system is still under the high control of the government. The public will only participate in individual activities directly related to their vital interests and have no interest in changing the urban governance environment. The effective operation of the system itself can only depend on the government’s attention and has little to do with businesses and the public. Therefore, in order to achieve true multicenter management, the participation of the public and enterprises must be increased. This study designs a multicenter social work management system by introducing intelligent technology.

First, improve the treatment and conditions of urban management practitioners and attract unique talents with stronger professional skills, richer service knowledge, and more advanced concepts to participate in the construction of the system. In particular, professional information collectors must have the corresponding capabilities to ensure the quality of the source system, and equipped with the second is to increase training efforts, improve the work quality of existing employees, strengthen the knowledge of serving the people and the enterprise, and build a disciplined, skilled, and good at solving complex problems. The third is to strengthen personnel management, adjust the staffing ratio, focus on multiangle start and multiparty coordination, continuously strengthen the construction of the intelligent system of social work management, and improve the

operation efficiency of the intelligent system of social work management.

In the traditional bureaucratic and block management system, when dealing with urban management issues, the responsibilities of each responsible department are unclear, and they will shirk their responsibilities, thereby further affecting the service and disposal of cases. Professors in the professional field analyzed the role of the government in the multicenter governance model and believed that the government should not play an “intermediary” role, but they mainly established a macroframework and code of conduct to maintain the smooth operation of the multicenter system. Through the intelligent management system of social work, the traditional management system with high internal cost has been broken, and the pattern of urban management has been changed.

An intelligent social work management system must meet the urgent needs of real-time urban management. By combining video surveillance with intelligent image recognition technology, a new way of information collection is provided. The integration of the Internet of things and 5G technology will change the shortcomings of the lack of authenticity and professionalism of manual collection of information in the past activity areas; by changing the form of human subjective experience and judgment of likes and dislikes, data can be used to assist decision-making.

## 6. Conclusion

The main theme of the current era is efficiency and responsibility, and the theory of intelligent management technology perfectly fits this theme and can effectively assist social workers in related work. Due to the particularity of social management work itself, it is impossible to rely on theoretical knowledge alone. Therefore, management methods must be combined in the actual application process to improve work efficiency and work income, so as to provide more professional and efficient services for target users. Based on this point, this study combines intelligent technology with social work management technology and introduces the improved genetic algorithm to build a social work intelligent management system, which is expected to assist social work service management to move towards a new development route.

### Data Availability

The data used to support the findings of this study are available from the corresponding authors upon request.

### Conflicts of Interest

The authors declare that they do not have any possible conflicts of interest.

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