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Research Article

Early Warning and Management Method of Abnormal Performance of Tourist Scenic Spots Assisted by Image Recognition Technology

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Scenic area is a product of the improvement of living standards and the improvement of economic level. Many types of scenic spots have been developed in most areas. The development of scenic spots will affect the economic development level of a region, and it will also affect the living standards of local residents because the construction of scenic spots will consume a lot of financial and human resources. If the scenic area can be managed well, it will bring greater economic benefits to the local area. However, if the scenic area fails to operate, it can affect the local finances. This requires local managers to be able to grasp the development of the scenic area, which will avoid abnormal performance. However, the performance management of scenic spots is more difficult for local managers, and more cumbersome data will be involved here. This study uses the convolutional neural network (CNN) method to realize the image recognition technology of the characteristics of the scenic area's flow of people and tourists' preferences, and these characteristics will be displayed to the managers in the form of images. In this study, the collaborative filtering algorithm can be used to complete the active recommendation of abnormal performance of tourist scenic spots. This also enables CNN to achieve collaborative monitoring. The research results show that image recognition technology can better assist managers to manage the abnormal performance of scenic spots. CNN also has good accuracy in predicting related features such as the flow of people in scenic spots. The similarity index of the three features exceeds 0.9. This has achieved a high accuracy for anomaly detection of tourist attractions. The largest similarity index has reached 0.963.

1. Introduction

With the improvement of economic level and people's pursuit of quality of life, the development of tourist attractions has been rapidly developed. However, the tourism industry is a relatively large investment industry [1, 2]. It needs to be effectively evaluated according to the local economic development level and local customs. Then, it can formulate a series of effective tourism industry programs. Therefore, for a tourism industry government, it needs to track the performance of the tourism industry according to the development of the tourism industry. Moreover, it needs to continuously update the projects of the tourism industry in real time according to the preferences of tourists and the flow of tourists [3, 4]. Each region will have different customs, and tourism that matches the customs will be more popular. However, it also needs to continuously formulate side jobs related to local customs according to the flow of people to continuously increase the income of the tourism industry. Therefore, the performance of a scenic area is more critical, and it is related to whether the scenic area will continue to develop and whether it will continue to bring considerable economic benefits to the local area [5]. At present, a large number of scenic spots have been developed in China, such as ancient villages or landscape gardens. However, it can be found that most of the scenic spots have been abandoned, which has resulted in a lot of waste of human and financial resources. This is because the government does not take into account the local flow of people and the needs of tourists. A scenic spot wants to develop continuously, and it can bring economic benefits continuously. This requires the local government or managers to establish a performance early warning model for scenic spots. The scenic spot performance early warning mode can provide performance reference in real time according to the development of the scenic spot and the flow of people [6, 7]. However, the performance management of the scenic area is not like the enterprise performance management model. The performance management of scenic spots is a dynamic process, and it needs to formulate performance models in real time according to the preferences of tourists and the flow of people or seasons. This management model brings certain difficulties to local managers. Image recognition technology can monitor the development of scenic spots and the density of people in real time, which can provide better data for the managers of scenic spots. These data can then provide a reference for them to manage the performance of the scenic area.

Image recognition technology has been widely used in face recognition, traffic signal recognition, and other fields, and it has also achieved great success. Image recognition technology mainly uses convolutional neural network (CNN) methods to identify the features of images. The CNN algorithm has been successfully verified in many fields, and this algorithm is relatively mature. In the field of image recognition of abnormal performance of tourist attractions, researchers can only adjust relevant parameters and layers according to their needs, which have high stability and practicability. After it needs to learn the features of a large number of images, it will have the ability of image recognition. The advantages of CNN technology lie in feature recognition and mapping of nonlinear relationships [8, 9]. The key algorithm used in the field of image recognition is the CNN method. With the continuous improvement of computer computing power, the accuracy of CNN in the field of image recognition continues to improve, which is also conducive to its widespread promotion and application [10, 11]. The image is mainly composed of channel features of three colors of RGB, and its value range is mainly distributed between 0 and 255. The identification of grayscale images is easier than that of color images because the values of grayscale images are mainly 0 and 1. However, most of the current image recognition mainly focuses on the recognition of color images. This requires the CNN algorithm to go through the learning and training stages of knowledge before performing the image recognition task [12, 13]. Only in this way will the accuracy of CNN in the field of image recognition be improved. Moreover, the features of different objects also have the distribution of different color feature values, requiring CNN to undergo more training for different research objects. Although different research objects have different color characteristics, and different research objects have different distributions of color characteristics, CNN has allowed more network layers to train and learn. This increases the field of application of image recognition [14].

The relevant factors of abnormal performance monitoring of tourist scenic spots are all data forms related to images, and these images will contain a large number of data features. Image recognition technology can quickly and efficiently identify abnormal image features. It is reasonable and feasible to apply the image recognition method to the abnormal performance early warning of scenic spots. This is because managers can continuously collect the flow of people in scenic spots and the areas where tourists are concentrated through the image collection system. These data can be reflected to the managers of the scenic area in the form of images. Compared with cumbersome data, the form of images can more intuitively reflect the distribution of people flow in scenic spots. As long as the manager grasps the distribution of the flow of people, it can formulate a series of management measures for the scenic area. Only reasonable scenic area management measures can avoid the appearance of abnormal performance of scenic areas. Therefore, it is a feasible method to combine image recognition technology with early warning scheme of abnormal performance of scenic spots. Collaborative filtering algorithms can make active recommendations based on common characteristics of objects. If the collaborative filtering algorithm is applied to the abnormal performance monitoring of tourist scenic spots, it can actively push abnormal images to the staff, which will also save a lot of time.

This study uses the CNN method to realize the image recognition technology of the scenic area, which can reflect the abnormal performance of the scenic area through other image features such as the flow of people in the scenic area and the preferences of tourists. This study also uses the collaborative filtering algorithm to realize the active recommendation function of abnormal performance of tourist scenic spots, which will be used in the back of CNN. The significance of the research on abnormal performance of scenic spots and the development status of image recognition technology are introduced in Section 1. Section 2 introduces the current status of related research on scenic spots. Section 3 mainly investigates the research scheme of combining image recognition technology with abnormal performance of scenic spots and the working principle of big data technology such as CNN. The feasibility and accuracy of combining image recognition techniques with scenic abnormal performance are presented in Section 4. This section mainly analyzes and introduces some statistical parameters. In this study, the correlation index distribution, error scatter plot, and average error distribution are used to analyze the feasibility of CNN and CF algorithm in abnormal performance monitoring of tourist scenic spots. Section 5 is the summary part of the study.

2. Related Work

The development of scenic spots is a product of the economic and social development and the improvement of people's living standards. However, managers should also manage the related products of the scenic area reasonably according to the actual performance of the scenic area. The abnormal performance of scenic spots is an important parameter and indicator for managers. Many researchers have done a lot of research on the relevant features of scenic spots. Wu and Chen [15] explored the interaction of human activities with associated features of scenic areas and the advantages that scenic areas bring to human activities. Through research, they found that there are important interactions between the three behavioral habits of people and the two characteristics of scenic spots. There is a strong correlation between the spatial characteristics of scenic spots and people's behavior. They used the random forest method to establish the relationship between people's behavior and the relevant characteristics of the scenic area, and they used the random forest method to predict the relevant characteristics.This method can provide certain suggestions for the optimal management of scenic spots and scenic spot planning. Cheng et al. [16] studied tourist preferences and the correlations that exist between external stimuli and tourist destinations. They first used the conditioned reflex relationship to establish a model that considers the relationship between habits and decision-making in scenic spots. Moreover, this study selected Jiuzhaigou Valley as the research object. The results of the study found that negative reports as well as negative characteristics of the scenic area can affect the performance and development of the scenic area. Beautiful scenery and unique ecological environment will promote the development of scenic area performance. This research can provide additional recommendations for the development and performance evaluation of scenic areas. Du et al. [17] studied Zhangjiajie Scenic Area as the research object to analyze the relationship between tourist characteristics and scenic spots. They used a fractal statistical model for analysis and wavelet analysis to analyze the nonlinear transformation of the tourist flow. The research results showed that the development of scenic spots is closely related to the flow of tourists. There is a great relationship between the flow of people in the scenic spot and the season. Wang et al. [18] mainly used the Delphi algorithm to study the impact of low-carbon behavior on the environment of the scenic area. At the same time, they also applied the AHP to study the impact of low-carbon behavior on the indicators of Zhangjiajie Scenic Area. The findings suggested that low-carbon behavior not only improves the environment of the scenic area, but also attracts more tourists, which improves the performance of the scenic area. At the same time, there is still much room for improvement in the low-carbon behavior of scenic spots. This research had certain reference value and warning effect for managers and tourists of scenic spots. Witkowski et al. [19] mainly studied the application of monitoring and evaluation methods in scenic areas. They mainly counted two different groups of travelers in Nigeria. The results of the study showed that there are small differences in the overall perception of KPIs by the traveler group. However, the environment has a greater significance for the scenic spot for tourists. Wang et al. [20] mainly studied the tourism structure network of 43 cities, and these studies were mainly conducted from three aspects of scenic environment, centrality, and community influence. The research results showed that the tourism centers of core cities will show relatively strong spatial concentration and temporal concentration. Scenic areas in the suburbs fared less well. In terms of network structure, there are clear boundaries between communities in the scenic area. From the above literature review, it can be seen that few researchers have studied the abnormal performance of scenic spots. This research mainly uses image recognition method and collaborative filtering algorithm to solve this problem. The CNN method used in this study can efficiently process a large number of images with features related to abnormal performance of tourist scenic spots. Collaborative filtering algorithms can actively recommend images with abnormal performance.

3. Application of Image Recognition Technology in Abnormal Performance of Scenic Spots

3.1. The Importance of Image Recognition Technology. If the abnormal performance of scenic spots is displayed to managers in the form of data, it will increase the difficulty of managers' work. This is because the data is complex and the amount of data is huge. If image recognition technology can be applied in the early warning of abnormal performance of scenic spots, it will not only reduce the workload of managers, but also reflect the situation of scenic spots to managers in a more intuitive way. The performance of the scenic area has a great relationship with the flow of people, the preference of tourists, and the development type of the scenic area [21]. However, the flow of people in the scenic area is more difficult to predict because the flow of people in the scenic area has a significant relationship with the time and what happens in the scenic area. Image recognition technology can use image acquisition technology for collection, and then it can display the real-time situation of scenic spots to managers in the form of a heat map. The application of image recognition technology in the early warning task of abnormal performance of scenic spots can help managers save a lot of human and material resources. This method is also more efficient.

3.2. Design Scheme of Image Recognition Technology and Principle of CNN. The present study is to use image recognition technology to achieve the task of forecasting and managing the abnormal performance of scenic spots. At the same time, this study mainly analyzes the influence of the three characteristics of the scenic area's traffic flow, the concentration of tourists, and the preferences of tourists on the performance of the scenic area. This method can not only intuitively display the characteristics of the scenic area to the manager, but also reflect the abnormal performance of the scenic area to the manager in the form of a heat map. This improves the timeliness of performance evaluation of scenic spots. Figure 1 shows the design scheme of image recognition technology in the early warning of abnormal performance of scenic spots. First, the manager needs to arrange the image acquisition system area to collect the flow of people, the concentration of tourists, and the preferences of tourists in the scenic area. The images of tourist scenic spots

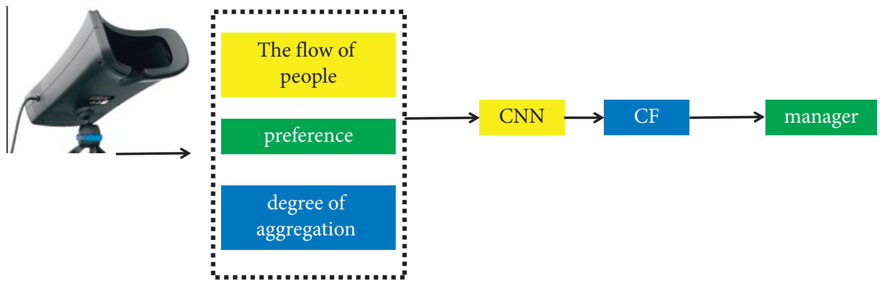

Figure 1: Image recognition and design scheme of CNN in abnormal performance early warning of scenic spots.

collected by the camera will be classified according to the distribution of weights. These images will be divided into images related to the flow of people and the degree of aggregation, and then these images will be input into the CNN. These data will be input into the CNN after preprocessing. CNN technology is mainly to assist managers to identify abnormal performance. The identification of abnormal performance of scenic spots is mainly based on the flow of people and the concentration of tourists in scenic spots. It can also use these images to establish a nonlinear relationship between images and abnormal performance. Then, these CNN-processed images and data will be sent to managers, who will identify and manage abnormal performance of scenic spots based on these images or data. The CF algorithm will transmit images related to abnormal performance of tourist attractions to managers. These images are jointly selected by CNN and CF algorithms. This scheme is a relatively intuitive and efficient scenic spot performance management mode. Not only can this solve a lot of time, it can also save the government's financial resources.

The images collected by the image acquisition system cannot be directly used by managers because the amount of image data is also huge. Managers only need to get images related to the abnormal performance of scenic spots. This requires intelligent algorithms to identify these images, which can only show the managers the images related to the abnormal performance of the scenic area. This study uses CNN technology to realize the image recognition technology of abnormal performance of scenic spots. Figure 2 shows how a CNN works. CNN technology is a flexible and changeable intelligent algorithm, which can be designed and built according to people's needs. The CNN technology used in this study mainly includes convolutional layers, pooling layers, and activation functions. The convolutional layer is mainly used to identify the features related to the performance of the scenic area, which can not only identify the related features efficiently, but also reduce the utilization of computing resources. The activation function is a necessary function for every neural network method, which can nonlinearize the data after the matrix operation. On the contrary, these data will be displayed to managers in the form of a linear operation. This fails to find areas of the image where abnormal performance exists. The number of CNN layers utilized in this study is 6, which will extract deeper abnormal performance features. The number of filters of CNN is 64. The sliding window is $3 * 3$.

The CNN algorithm is similar to other intelligent algorithms in that it has a forward propagation mechanism and a back propagation mechanism. Both propagation mechanisms require gradient descent methods to perform. The core of the gradient descent method is the derivative calculation of weights and biases. Equations (1) and (2) show how the derivation of weights and biases in a CNN is calculated.

$$\Delta\omega_{ji} = -\eta\frac{\partial E}{\partial \omega_{ji}}, \tag{1}$$

$$\Delta u_{ij} = -\eta\frac{\partial E\,\partial}{\partial u_{ij}}. \tag{2}$$

The input calculation of CNN is quite different from other neural networks. The input data of CNN needs to perform Conv convolution operation before it can be output to the next layer of network. Equation (3) shows how the data convolution operation is calculated. b represents the bias and X represents the input data. Conv stands for convolution operation.

$$V = \mathrm{conv2}\left(W, X'', \mathrm{valis}''\right) + b. \tag{3}$$

Equation (4) shows the calculation method of the output layer of CNN, which is to nonlinearize the data after feature processing. Y is the output data. V represents the data subjected to the convolution operation.

$$Y = \phi(V). \tag{4}$$

Equation (5) shows the internal calculation method of the convolution operation, which mainly involves the calculation between each convolution layer. The rot180 represents the operation after the feature is flipped 180°.

$$\delta^{l-1} = \mathrm{conv2}\left(\mathrm{rot180}\left(W^{l}\right), \delta^{l}, '\mathrm{full}'\right)\phi'\left(v^{l-1}\right). \tag{5}$$

The loss function is a criterion for evaluating gradient descent. The loss function is to calculate the error between the actual value and the predicted value. The gradient descent method is to find the smallest error value. Equation (6) shows how the loss function is calculated. In this study, the calculation method of mean square error was chosen.

$$E = \frac{1}{2}\left(d_{\mathrm{out}} - O_{\mathrm{real}}\right)^2 = \frac{1}{2}\sum_{\kappa=1}^{t}\left(d_\kappa - O_\kappa\right)^2. \tag{6}$$

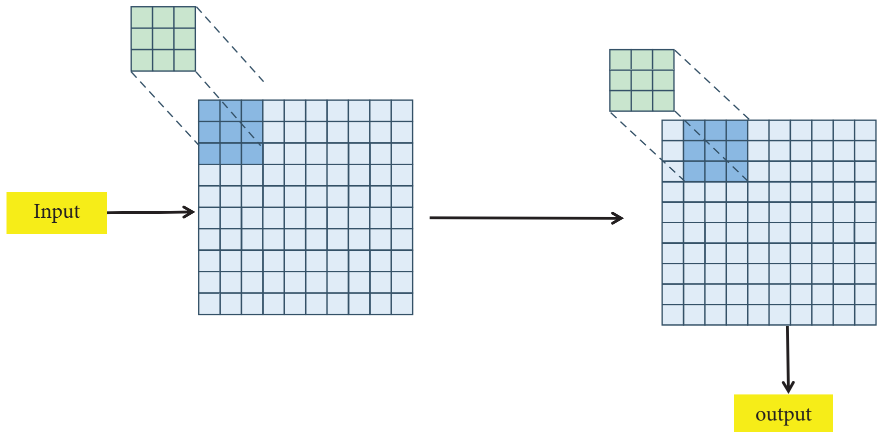

Figure 2: Application of CNN technology in image recognition technology related to scenic spot performance.

3.3. Recommendation Abnormal Performance of Coordinated Filtering Algorithm in Scenic Spots. After the relevant image of the scenic spot is collected by the image acquisition sensor, it needs to be extracted by CNN technology. After these images are recognized by CNN, it needs to be recommended by collaborative filtering algorithm. Coordinated filtering algorithms are mainly used in recommender systems. It is to recommend images with similar characteristics to users. This study uses a coordinated filtering algorithm to recommend abnormal performance of scenic spots with similar characteristics to managers. This method can more efficiently find where the abnormal performance of scenic spots exists.

Collaborative filtering algorithms are mainly divided into two types: object-based and item-based algorithms. This research mainly chooses the item-based collaborative filtering algorithm. This algorithm needs to group items with similar characteristics into one category for recommendation to related users. The common way to find the similarity between data is to calculate the distance between the data. In this study, the calculation method of the Jaccard similarity coefficient was chosen. Equation (7) demonstrates this method of calculating similarity.

$$J(A, B) = \frac{|A \cap B|}{|A \cup B|}. \tag{7}$$

Equation (8) shows a distance calculation method for the cosine of the included angle of the collaborative filtering algorithm. Equation (9) is a multidimensional generalization of equation (8).

$$\cos\,\theta = \frac{a \bullet b}{|a||b|}. \tag{8}$$

$$\cos\,\theta = \frac{\sum_{k=1}^{n} x_{1k} x_{2k}}{\sqrt{\sum_{k=1}^{n} x_{1k}}^{2} \sqrt{\sum_{k=1}^{n} x_{2k}}^{2}}. \tag{9}$$

Equation (10) demonstrates the association-based similarity method. This method computes the Pearson-r correlation between two datasets. Equation (5) shows how the adjusted cosine pair similarity is calculated.

$$\begin{aligned} \text{sim}(i, j) &= \frac{\sum_{u \in U}\left(R_{u,i} - R_i\right)\left(R_{u,j} - R_j\right)}{\sqrt{\sum_{u \in U}\left(R_{u,i} - R_i\right)}^{2} \sqrt{\sum_{u \in U}\left(R_{u,j} - R_j\right)}^{2}}, \\ \text{sim}(i, j) &= \frac{\sum_{u \in U}\left(R_{u,i} - R_u\right)\left(R_{u,j} - R_u\right)}{\sqrt{\sum_{u \in U}\left(R_{u,i} - R_u\right)}^{2} \sqrt{\sum_{u \in U}\left(R_{u,j} - R_u\right)}^{2}}. \end{aligned} \tag{10}$$

4. Result Analysis and Discussion

This research mainly uses collaborative filtering algorithm and CNN technology to realize the recommendation and image recognition technology of abnormal performance of scenic spots. The relevant images of scenic spots are collected in practical engineering applications using image sensor technology. The selection of the data set should include as many characteristics of factors related to abnormal performance of tourist scenic spots as possible, which requires it to contain more scenic spots and the distribution of different tourists. In the training process, this study uses relevant data from several large scenic spots in Hangzhou. It needs to classify the relevant data of these images. This study mainly analyzes the impact of three aspects of the scenic area's traffic flow, the degree of tourist aggregation, and the preferences of tourists on the performance of the scenic area. These three characteristics are also key factors affecting the abnormal performance of scenic spots. When the prediction stage of CNN is completed, it needs to use collaborative filtering algorithm to recommend abnormal performance for managers' reference.

In this study, the similarity index of collaborative filtering algorithm is an important parameter. The accuracy of similarity index will affect the accuracy of abnormal performance recommendation of scenic spots. If the similarity index is closer to 1, it means that the collaborative filtering algorithm has higher feasibility in recommending abnormal performance of scenic spots. Figure 3 shows the distribution of the correlation index of the collaborative filtering algorithm in the abnormal performance of recommended scenic spots. Overall, the collaborative filtering algorithm has good feasibility in the recommendation of abnormal performance

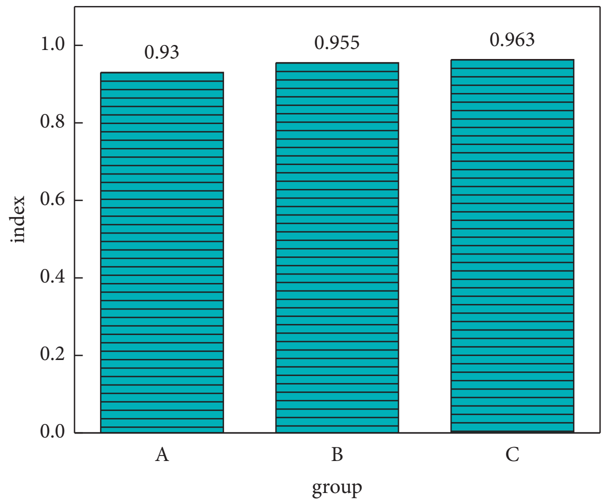

FIGURE 3: Similarity index distribution of three characteristics of abnormal performance of scenic spots.

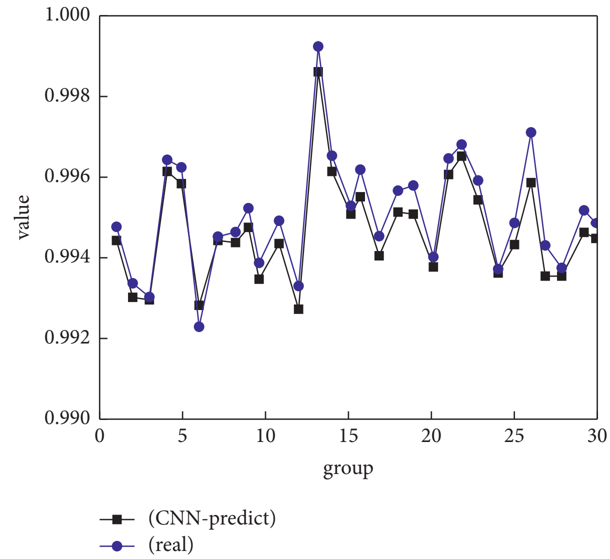

FIGURE 4: Recognition and prediction of people flow characteristics in scenic spots using CNN method.

of scenic spots because the similarity index of the three features exceeds 0.9. The largest similarity index has reached 0.963. The source of this part of the similarity index is the preference of passengers, which is relatively easy to recommend because the preferences of passengers have good volatility. The smallest similarity index also reached 0.93, and this part of the similarity index comes from the flow of people in the scenic area. The flow of people in the scenic area has great volatility, and this part of the characteristics has a great relationship with the abnormal performance of the scenic area. However, the similarity index of the flow of people in the scenic area has also reached the range that managers can trust.

The flow of people in the scenic area is one of the important factors affecting the performance of the scenic area. If there is a low flow of people in a scenic spot, this can seriously affect the performance of the scenic spot. Therefore, the flow of people is a key factor for the research on abnormal performance early warning of scenic spots. Figure 4 shows the distribution curve of the predicted and actual value of people flow in the scenic area using the CNN method. After the distribution of people flow in the scenic area is collected by the image acquisition sensor, it needs to use CNN for image recognition technology to identify the flow of people. Although there are large changes in the flow of people in the scenic area in different time periods, CNN can better identify the change trend of the flow of people. In general, the CNN method can better identify the value of the flow of people in the scenic area. Larger identification errors are mainly distributed in areas with large gradients of people flow in scenic spots. There is a smaller recognition error in the area with less change in the flow of people. The CNN method can also better predict and identify the changes in the flow of people in the scenic area, whether it is the peak or the trough of the change of people flow. Overall, CNN has good accuracy in the identification of people flow in scenic areas. This can help managers to reflect the abnormal performance of scenic spots.

Figure 5 shows the error distribution between the actual value and the predicted value of the scenic spot image features identified by the CNN method. Overall, CNN has high accuracy in predicting and identifying the flow of people in scenic areas. Most errors are distributed within 2%. Only a small number of traffic features have an error value of more than 2%. However, this part of the error is still within the acceptable range of 5%. This is helpful for managers to look for abnormal performance of scenic spots. Only by using CNN technology to detect the human flow images of scenic spots with low errors, can the abnormal performance of scenic spots be inferred and managed more effectively. Therefore, the prediction error of the flow of people in this scenic spot is an error distribution that can be trusted by managers.

Tourists' preference for scenic spots is also a key factor determining the performance of scenic spots. If most tourists have good preferences for the projects or humanistic culture in this scenic area, it will attract more customers. In turn, it can bring more considerable performance to the scenic area. On the contrary, it will bring abnormal performance crisis to the scenic area. Figure 6 shows the distribution of the predicted and actual values of the CNN method in predicting the tourist preferences of scenic spots. In general, the CNN method can effectively feedback the characteristics of tourists' preferences in scenic spots. Although the peak value of the passenger preference features predicted by CNN is smaller than the actual value, most of the feature values are in good agreement with the actual passenger preference feature values, especially the average value of the feature values. This shows that CNN can effectively identify the features of tourists' preferences from images. In general, this prediction effect can better guide the early warning task of abnormal performance of scenic spots.

Figure 7 shows the degree of tourist aggregation in the scenic area. Managers can formulate relevant marketing plans to improve the performance of scenic spots according

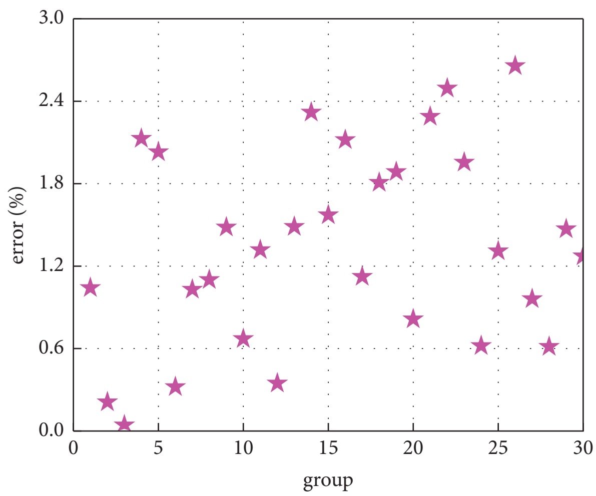

Figure 5: Prediction error distribution of people flow in scenic spots.

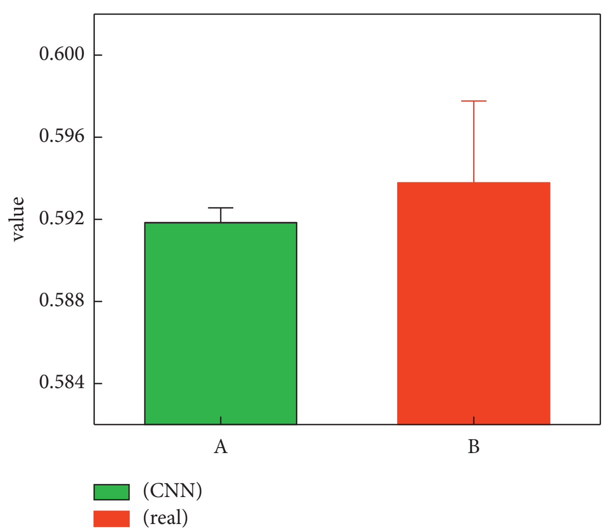

Figure 6: Predicted value and actual value distribution of tourist preference characteristics in scenic spots.

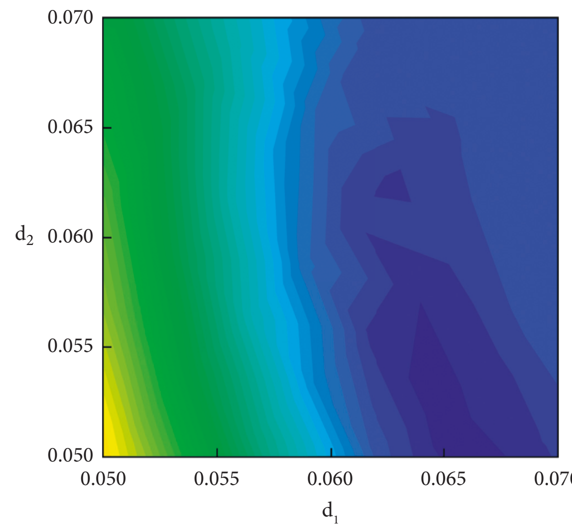

Figure 7: The distribution heat map of the characteristics of the tourist aggregation degree in the scenic area.

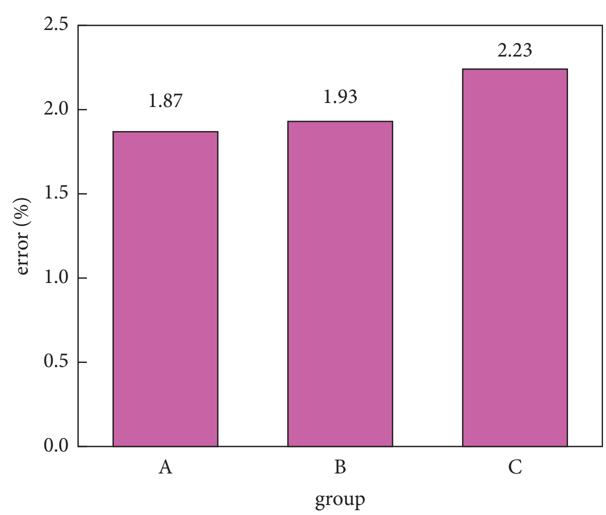

Figure 8: Prediction mean error of features related to abnormal performance of scenic spots.

to the concentration of tourists in scenic spots. It can be seen from Figure 7 that the CNN method can better reflect the aggregation degree of tourists in the scenic area. Most of the tourists will be concentrated in the fringes of the scenic area, which may be that more and more tourists prefer to participate in the activities rather than just watch the customs and other activities. This further illustrates the feasibility and accuracy of the CNN method in identifying the clustering degree of scenic spots. Figure 8 shows the average error of the CNN method in identifying three features related to scenic performance. A represents the flow of people in tourist scenic spots. B represents the preferences of tourists in the scenic spot. C represents the agglomeration degree of tourist scenic spots. Overall, CNN has high accuracy in predicting the three characteristics of abnormal performance of scenic spots. This is because most forecast errors are distributed within 3%. The largest prediction error is only 2.23%. This part of the prediction error mainly comes from the characteristics of the flow of people in the scenic area, which is a part of the characteristics with large fluctuations.

5. Conclusion

With the rapid economic development, the scenic area has also developed rapidly. However, managers should view the development and performance of the scenic area reasonably, and it cannot be developed blindly. The abnormal performance of scenic spots is a key parameter for managers, but the current form will be displayed to managers in the form of data, which increases the difficulty for managers. This study combines the CNN method to realize the image recognition technology of abnormal performance of scenic spots. It can identify pictures of scenic spots related to abnormal performance from a large amount of picture data.

The research results show that the CNN method used in this study has certain feasibility and preparation in the abnormal performance image recognition task of scenic spots. In order to achieve accurate recommendation after image recognition, collaborative filtering algorithm is also used in this study. Collaborative filtering algorithm also has a high similarity index. The lowest similarity also reached 0.93. This part of the lower similarity index comes from the identification and recommendation of the traffic characteristics of the scenic spots. Although there is a large mutation in this part of the characteristics, collaborative filtering algorithms may also better recommend images of abnormal performance of relevant scenic spots for managers. For CNN, the largest prediction error is only 2.23%. The smallest prediction error is only 1.87%. This part of the error is acceptable enough for image recognition of abnormal performance of scenic spots.

Data Availability

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

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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