

WHAT IS CLAIMED IS:

1. A method for training an item coding model, comprising:

obtaining a training sample set, wherein a training sample in the training sample set comprises sample user information, sample item information corresponding to the sample user information, and sample item coding information corresponding to the corresponding sample item information;

obtaining an initial item coding model;

using the sample user information of the training sample in the training sample set as input into the initial item coding model to obtain a probability of the sample item coding information corresponding to the input sample user information; and

adjusting a structural parameter of the initial item coding model on the basis of maximizing the obtained probability of the sample item coding information corresponding to the input sample user information, so as to obtain the item coding model by training, wherein the item coding model is used to represent a correspondence relationship between the input sample user information and the sample item coding information as well as a correspondence relationship between the sample item information and the sample item coding information;

determining a relevance degree between each piece of sample item information and each piece of item coding information output by the initial item coding model in a process of adjusting the structural parameter of the initial item coding model, wherein the relevance degree is determined based on a probability of at least one piece of item coding information obtained from the input sample user information corresponding to the sample item information through the initial item coding model, wherein determining the relevance degree between each piece of sample item information and each piece of item coding information output by the initial item coding model in the process of adjusting the structural parameter of the initial item coding model comprises:

determining probabilities between the sample item information in each batch of training samples and the corresponding item coding information sequentially according to a time order as sub-relevance degrees; and

integrating the determined sub-relevance degrees to generate the relevance degree between each piece of sample item information and each piece of item coding information, wherein a proportion of the sub-relevance degrees to the relevance degree is consistent with a proximity degree of a training moment to a current moment; and

adjusting the correspondence relationship between the sample item information and the sample item coding information based on the determined relevance degree.

2. The method according to claim 1, wherein obtaining the training sample set comprises:

obtaining an initial training sample set, wherein an initial training sample in the initial training sample set comprises the sample user information and the sample item information corresponding to the sample user information;

randomly generating the sample item coding information corresponding to the initial training sample in the initial training sample set; and

combining the initial training sample and the randomly generated sample item coding information into the training sample in the training sample set.

3. The method according to claim 1, wherein adjusting the correspondence relationship between the sample item information and the sample item coding information based on the determined relevance degree comprises:

adjusting the correspondence relationship between the sample item information and the sample item coding information according to a distribution consistent with the determined relevance degree and based on a preset penalty function, wherein the penalty function is in positive correlation with a number of sample items corresponding to the item coding information.

4. The method according to claim 3, wherein the sample item information corresponds to a priority, and

adjusting the correspondence relationship between the sample item information and the sample item coding information according to the distribution consistent with the determined relevance degree and based on the preset penalty function comprises:

selecting, in response to determining that a number corresponding to the same piece of item coding information is larger than a preset threshold, sample item information of a target number from the sample item information corresponding to the same piece of item coding information according to the corresponding priority; and

re-generating sample item coding information corresponding to the selected sample item information of the target number according to the determined relevance degree.

5. The method according to claim 1, wherein a coding space corresponding to the sample item coding information comprises layers of a first number, each layer in the layers of the first number comprises dimensions of a second number, and the first number is smaller than the second number.

6. The method according to claim 5, wherein using the sample user information of the training sample in the training sample set as the input into the initial item coding model to obtain the probability of the sample item coding information corresponding to the input sample user information comprises:

inputting the sample user information of the training sample in the training sample set into the initial item coding model to obtain a probability distribution of at least one piece of item coding information corresponding to the input sample user information, wherein the at least one piece of item coding information comprises the sample item coding information corresponding to the input sample user information, a probability in the probability distribution is obtained based on a sub-probability output by each layer in the coding space, and the sub-probability is obtained based on the sample user information and a feature vector output by a previous layer.

7. A method for generating recalled item information, comprising:

obtaining user information;

inputting the user information into a pre-trained item coding model to obtain item coding information corresponding to the user information, wherein the item coding model is obtained by training through the method according to any one of claims 1-6; and

inputting the item coding information and the user information into a pre-trained vector model to obtain the recalled item information corresponding to the user information.

8. The method according to claim 7, wherein the item coding model and the vector model are trained together based on a feature vector corresponding to the item coding information.

9. A computer-readable storage medium, storing a computer program therein, wherein the program, when being executed by a processor, causes the processor to implement the method according to any one of claims 1-6.