## CLAIMS

What is claimed is:

1. A method for showing a target object sequence to a target user, comprising:

determining the initial ranking of various target objects in a target object sequence to be shown, wherein the initial ranking is performed in descending order of correlation degrees between the various target objects and the target user;

obtaining object features respectively corresponding to the various target objects in the target object sequence;

inputting, based on the initial ranking, the object features respectively corresponding to the various target objects into a pre-trained reranking model, wherein the reranking model comprises an encoder and a decoder, and the encoder is a transformer network, the transformer network encodes the various object features based on a multi-head attention mechanism to obtain the context representation vector corresponding to the target object sequence, and the decoder outputs the reranking of the various target objects in the target object sequence based on the context representation vector; and

showing the target object sequence to the target user based on positions of the reranked various target objects.

2. The method according to claim 1, wherein the obtaining object features respectively corresponding to the various target objects in the target object sequence comprises:

obtaining attribute features respectively corresponding to the various target objects in the target object sequence;

obtaining correlation degrees between the various target objects and the target user;

obtaining a user feature of the target user; and

combining an attribute feature of any target object, a correlation degree between the target object and the target user, and the user feature of the target user into an object feature corresponding to the target object.

3. The method according to claim 2, wherein the reranking model is used to predict preference degrees of the target user to the various target objects, and rerank the various target objects based on the predicted preference degrees;

the reranking model is trained based on a sample object sequence; various sample objects in the sample object sequence have the initial ranking; the various sample objects have corresponding object features; the object feature is formed by combining an attribute feature of a sample object, a correlation degree between the sample object and a sample user, and a user feature of the sample user; and the sample object sequence has a sample label representing a user preference of the sample user to each of the various sample objects.

4. The method according to claim 3, wherein the sample label is determined based on historical behavior data of the sample user.

5. The method according to claim 4, wherein the historical behavior data comprise at least one of click data or conversion data.

6. The method according to claim 1, wherein that the transformer network encodes the various object features based on a multi-head attention mechanism comprises:

determining query vectors, key vectors, and value vectors respectively corresponding to the various object features;

determining a weight of a second object feature to a first object feature based on a query vector corresponding to the first object feature and a key vector corresponding to the second object feature, wherein the first object feature and the second object feature are any two object features in the various object features; and

determining an encoding vector of the first object feature based on weights of the various object features to the first object feature and the value vectors of the various object features, so as to obtain encoding vectors corresponding to the various object features.

7. The method according to claim 1, wherein the decoder comprises a fully connected layer, a regression layer, and an output layer; and that the decoder outputs the reranking of the various target objects in the target object sequence based on the context representation vector comprises:

processing, by using the fully connected layer, the context representation vector into a first output vector, wherein the first output vector has the same number of dimensions as the various target objects;

applying a softmax function to the first output vector on the regression layer to obtain scores of the various target objects; and

outputting, by using the output layer, the reranking of the various target objects

in the target object sequence based on a descending order of the scores of the various target objects.

8. An apparatus for showing a target object sequence to a target user, comprising:

a first ranking unit, configured to determine the initial ranking of various target objects in a target object sequence to be shown, wherein the initial ranking is performed in descending order of correlation degrees between the various target objects and the target user;

an acquisition unit, configured to obtain object features respectively corresponding to the various target objects in the target object sequence;

a second ranking unit, configured to input, based on the initial ranking, the object features respectively corresponding to the various target objects into a pre-trained reranking model, wherein the reranking model comprises an encoder and a decoder, and the encoder is a transformer network, the transformer network encodes the various object features based on a multi-head attention mechanism to obtain a context representation vector corresponding to the target object sequence, and the decoder outputs the reranking of the various target objects in the target object sequence based on the context representation vector; and

a displaying unit, configured to show the target object sequence to the target user based on positions of the reranked various target objects obtained by the second ranking unit.

9. The apparatus according to claim 8, wherein the acquisition unit comprises:

a first acquisition subunit, configured to obtain attribute features respectively corresponding to the various target objects in the target object sequence;

a second acquisition subunit, configured to obtain correlation degrees between the various target objects and the target user;

a third acquisition subunit, configured to obtain a user feature of the target user; and

a combination subunit, configured to combine an attribute feature of any target object obtained by the first acquisition subunit, a correlation degree between the target object and the target user obtained by the second acquisition subunit, and the user feature of the target user obtained by the third acquisition subunit into an object feature corresponding to the target object.

10. The apparatus according to claim 9, wherein the reranking model is used to predict preference degrees of the target user to the various target objects, and rerank

the various target objects based on the predicted preference degrees;

the reranking model is trained based on a sample object sequence; various sample objects in the sample object sequence have the initial ranking; the various sample objects have corresponding object features; the object feature is formed by combining an attribute feature of a sample object, a correlation degree between the sample objects and a sample user, and a user feature of the sample user; and the sample object sequence has a sample label representing the user preference of the sample user to the various sample objects.

11. The apparatus according to claim 10, wherein the sample label is determined based on historical behavior data of the sample user.

12. The apparatus according to claim 11, wherein the historical behavior data comprise at least one of click data or conversion data.

13. The apparatus according to claim 8, wherein that the transformer network encodes the various object features based on a multi-head attention mechanism comprises:

determining query vectors, key vectors, and value vectors respectively corresponding to the various object features;

determining a weight of a second object feature to a first object feature based on a query vector corresponding to the first object feature and a key vector corresponding to the second object feature, wherein the first object feature and the second object feature are any two object features in the various object features; and

determining an encoding vector of the first object feature based on weights of the various object features to the first object feature and the value vectors of the various object features, so as to obtain encoding vectors corresponding to the various object features.

14. The apparatus according to claim 8, wherein the decoder comprises a fully connected layer, a regression layer, and an output layer; and that the decoder outputs the reranking of the various target objects in the target object sequence based on the context representation vector comprises:

processing, by using the fully connected layer, the context representation vector into a first output vector, wherein the first output vector has the same number of dimensions as the various target objects;

applying a softmax function to the first output vector on the regression layer to obtain scores of the various target objects; and

outputting, by using the output layer, the reranking of the various target objects in the target object sequence based on a descending order of the scores of the various target objects.

15. A computer readable storage medium storing a computer program that, when executed in a computer, enables the computer to implement the method according to any one of claims 1 to 7.

16. A computing device, comprising a memory and a processor, wherein the memory stores an executable code; and when the processor executes the executable code, the method according to any one of claims 1 to 7 is implemented.