CLAIMS

1. A method for constructing a scoring model for determining a credit score of a user, the method comprising:

collecting, by a computing device, a plurality of sample datasets comprising credit data information collected from multiple users, each of the plurality of sample datasets comprising at least one characteristic variable and a corresponding characteristic value;

for each characteristic variable, acquiring, by the computing device, an interaction index of the characteristic variable with each of one or more other characteristic variables, and determining, by the computing device, a clustering index of the characteristic variable according to the interaction indices, the clustering indices indicating strength of interactions between the characteristic variables;

selecting, by the computing device, a target characteristic variable from the at least one characteristic variable according to the strength of interactions between the characteristic variables indicated by the clustering indices of the characteristic variables;

dividing, by the computing device, the plurality of sample datasets into a plurality of sample dataset subgroups according to the target characteristic variable and the corresponding characteristic value; and

constructing, by the computing device, a corresponding sub-scoring model for determining a credit score for a user, for each of the sample dataset subgroups,

wherein the acquiring an interaction index of the characteristic variable with one or more other characteristic variables comprises:

training, by the computing device, a regular scoring card model according to the at least one characteristic variable and the corresponding characteristic value, the other characteristic variables and corresponding characteristic values in the sample dataset, and a sample label of the sample dataset;

training, by the computing device, a cross scoring card model according to the at least one characteristic variable and the corresponding characteristic value, the other characteristic variables and corresponding characteristic values in the sample dataset, and the sample label of the sample dataset; and

determining, by the computing device, a performance difference value between the trained regular scoring card model and the trained cross scoring card model, and using the performance difference value as the interaction index.

2. The method according to claim 1, wherein the determining a performance difference value between the trained regular scoring card model and the trained cross scoring card model comprises:

scoring, by the computing device, the sample dataset with the trained regular scoring card model;

according to sample dataset scoring results scored by the trained regular scoring card model and to the sample label, determining, by the computing device, a performance index value of the trained regular scoring card model;

scoring, by the computing device, the sample dataset with the trained cross scoring card model;

according to sample dataset scoring results scored by the trained cross scoring card model and to the sample label, determining, by the computing device, a performance index value of the trained cross scoring card model; and

determining, by the computing device, the performance difference value according to the performance index value of the trained regular scoring card model and the performance index value of the trained cross scoring card model.

3. The method according to claim 1, wherein the determining a clustering index of the characteristic variable according to the interaction indices comprises:

performing, by the computing device, an addition operation on the plurality of the interaction indices to obtain a summing result; and

using, by the computing device, the summing result as the clustering index of the characteristic variable.

4. The method according to claim 1, wherein the selecting a target characteristic variable from the at least one characteristic variable according to the clustering indices of the characteristic variables comprises:

comparing, by the computing device, the clustering indices of the characteristic variables, and selecting one of the characteristic variables corresponding to the maximum clustering index as the target characteristic variable.

5. A method for evaluating user credit, the method comprising:

acquiring credit data information of a user;

determining, according to the credit data information, characteristic values respectively

corresponding to a target characteristic variable and one or more other characteristic variables, wherein the target characteristic variable is selected according to strength of interactions between a plurality of characteristic variables indicated by clustering indices of the plurality of characteristic variables, and a plurality of sample datasets categorized in subgroups and comprise the plurality of characteristic variables and a corresponding characteristic value for each of the characteristic variables;

selecting a corresponding sample dataset subgroup according to the characteristic value corresponding to the target characteristic variable; and

determining a credit score of the user according to a sub-scoring model corresponding to the sample dataset subgroup and characteristic values corresponding to the other characteristic variables,

wherein selecting the target characteristic variable comprises:

for the each characteristic variable in the sample dataset, acquiring an interaction index of the characteristic variable with each of the other characteristic variables, and determining a clustering index of the characteristic variable according to the interaction indices; and

selecting the target characteristic variable from the plurality of characteristic variables according to the clustering indices of the plurality of characteristic variables, and

wherein the acquiring an interaction index of the characteristic variable with each of the other characteristic variables comprises:

training a regular scoring card model according to the plurality of characteristic variables and the corresponding characteristic values, the other characteristic variables and corresponding characteristic values in the sample dataset, and a sample label of the sample dataset;

training a cross scoring card model according to the plurality of characteristic variables and the corresponding characteristic values, the other characteristic variables and corresponding characteristic values in the sample dataset, and a sample label of the sample dataset; and

determining a performance difference value between the trained regular scoring card model and the trained cross scoring card model, and using the performance difference value as the interaction index.

6. The method according to claim 5, wherein the determining a performance difference value between the trained regular scoring card model and the trained cross

scoring card model comprises:

scoring the sample dataset with the trained regular scoring card model;

according to sample dataset scoring results scored by the trained regular scoring card model and to the sample label, determining a performance index value of the trained regular scoring card model;

scoring the sample dataset with the trained cross scoring card model;

according to sample dataset scoring results scored by the trained cross scoring card model and to the sample label, determining a performance index value of the trained cross scoring card model; and

determining the performance difference value according to the performance index value of the trained regular scoring card model and the performance index value of the trained cross scoring card model.

7. A device for constructing a scoring model for determining a credit score of a user, the device comprising a processor and a non-transitory computer-readable storage medium storing instructions that, when executed by the processor, cause the device to perform a method, the method comprising:

collecting a plurality of sample datasets comprising credit data information from multiple users, each of the plurality of sample datasets comprising at least one characteristic variable and a corresponding characteristic value;

for each characteristic variable, acquiring an interaction index of the characteristic variable with each of one or more other characteristic variables, and determining a clustering index of the characteristic variable according to the interaction indices, the clustering indices indicating strength of interactions between the characteristic variables;

selecting a target characteristic variable from the at least one characteristic variable according to the strength of interactions between the characteristic variables indicated by the clustering indices of the characteristic variables;

dividing the plurality of sample datasets into a plurality of sample dataset subgroups according to the target characteristic variable and the corresponding characteristic value; and

constructing a corresponding sub-scoring model for determining a credit score for a user, for each of the sample dataset subgroups,

wherein the acquiring an interaction index of the characteristic variable with one or more other characteristic variables comprises:

training a regular scoring card model according to the at least one characteristic

variable and the corresponding characteristic value, the other characteristic variables and corresponding characteristic values in the sample dataset, and a sample label of the sample dataset;

training a cross scoring card model according to the at least one characteristic variable and the corresponding characteristic value, the other characteristic variables and corresponding characteristic values in the sample dataset, and the sample label of the sample dataset; and

determining a performance difference value between the trained regular scoring card model and the trained cross scoring card model, and using the performance difference value as the interaction index.

8. The device according to claim 7, wherein the determining a performance difference value between the trained regular scoring card model and the trained cross scoring card model comprises:

scoring the sample dataset with the trained regular scoring card model;

according to sample dataset scoring results scored by the trained regular scoring card model and to the sample label, determining a performance index value of the trained regular scoring card model;

scoring the sample dataset with the trained cross scoring card model;

according to sample dataset scoring results scored by the trained cross scoring card model and to the sample label, determining a performance index value of the trained cross scoring card model; and

determining the performance difference value according to the performance index value of the trained regular scoring card model and the performance index value of the trained cross scoring card model.

9. The device according to claim 7, wherein the determining a clustering index of the characteristic variable according to the interaction indices comprises:

performing an addition operation on the plurality of the interaction indices to obtain a summing result; and

using the summing result as the clustering index of the characteristic variable.

10. The device according to claim 7, wherein the selecting a target characteristic variable from the at least one characteristic variable according to the clustering indices of the

characteristic variables comprises:

comparing the clustering indices of the characteristic variables, and selecting one of the characteristic variables corresponding to the maximum clustering index as the target characteristic variable.

11. A device for evaluating user credit, the device comprising a processor and a non-transitory computer-readable storage medium storing instructions that, when executed by the processor, cause the device to perform a method, the method comprising:

acquiring credit data information of a user;

determining, according to the credit data information, characteristic values respectively corresponding to a target characteristic variable and one or more other characteristic variables, wherein the target characteristic variable is selected according to strength of interactions between a plurality of characteristic variables indicated by clustering indices of the plurality of characteristic variables, and a plurality of sample datasets categorized in subgroups and comprise the plurality of characteristic variables and a corresponding characteristic value for each of the characteristic variables;

selecting a corresponding sample dataset subgroup according to the characteristic value corresponding to the target characteristic variable; and

determining a credit score of the user according to a sub-scoring model corresponding to the sample dataset subgroup and characteristic values corresponding to the other characteristic variables,

wherein selecting the target characteristic variable comprises:

for the each characteristic variable in the sample dataset, acquiring an interaction index of the characteristic variable with each of the other characteristic variables, and determining a clustering index of the characteristic variable according to the interaction indices; and

selecting the target characteristic variable from the plurality of characteristic variable according to the clustering indices of the plurality of characteristic variables, and

wherein the acquiring an interaction index of the characteristic variable with each of the other characteristic variables comprises:

training a regular scoring card model according to the plurality of characteristic variable and the corresponding characteristic values, the other characteristic variables and corresponding characteristic values in the sample dataset, and a sample label of the sample dataset;

training a cross scoring card model according to the plurality of characteristic variable and the corresponding characteristic values, the other characteristic variables and corresponding characteristic values in the sample dataset, and a sample label of the sample dataset; and

determining a performance difference value between the trained regular scoring card model and the trained cross scoring card model, and using the performance difference value as the interaction index.

12. The device according to claim 11, wherein the determining a performance difference value between the trained regular scoring card model and the trained cross scoring card model comprises:

scoring the sample dataset with the trained regular scoring card model;

according to sample dataset scoring results scored by the trained regular scoring card model and to the sample label, determining a performance index value of the trained regular scoring card model;

scoring the sample dataset with the trained cross scoring card model;

according to sample dataset scoring results scored by the trained cross scoring card model and to the sample label, determining a performance index value of the trained cross scoring card model; and

determining the performance difference value according to the performance index value of the trained regular scoring card model and the performance index value of the trained cross scoring card model.