

WHAT IS CLAIMED IS:

1. A method of analysis based on a model, comprising:

A. training various pre-determined models based on a preset number of customer information samples;

B. combining the various trained models into a compound model according to a pre-determined combining rule, and after customer information to be analyzed is received, inputting the customer information to be analyzed into the compound model to output an analysis result;

which is characterized in that the step of training the various pre-determined models based on the preset number of customer information samples comprises:

C. in the process of training one pre-determined model, after each training session, respectively inputting all the customer information samples into the current trained model to determine a customer information sample misanalyzed by the model;

D. calculating whether a ratio of the number of customer information samples misanalyzed by the model to the number of all the customer information samples is less than a preset threshold value or not;

E. if the ratio of the number of customer information samples misanalyzed by the model to the number of all the customer information samples is less than the preset threshold value, ending the training of the pre-determined model;

F. if the ratio of the number of customer information samples misanalyzed by the model to the number of all the customer information samples is greater than or equal to the preset threshold value, increasing the proportion of customer information samples belonging to the same type as that of the customer information samples misanalyzed by the model in the total customer information samples according to a

preset ratio increasing degree, decreasing the proportion of customer information samples correctly analyzed by the model in the total customer information samples according to a preset ratio decreasing degree, and then reexecuting the steps C, D, E and F.

2. The method of analysis based on the model according to claim 1, which is characterized in that the number of the pre-determined models is N which is a natural number more than 2; the i^{th} pre-determined model is marked as F_i , and i is a positive integer less than or equal to N; the compound model combined by the various trained models according to the pre-determined combining rule is as follows:

$$\text{the compound model} = (1/N)*F_1 + (1/N)*F_2 + \dots + (1/N)*F_N.$$

3. The method of analysis based on the model according to claim 1, which is characterized in that the number of the pre-determined models is N which is a natural number more than 2; the i^{th} pre-determined model is marked as F_i , and i is a positive integer less than or equal to N; the compound model combined by the various trained models according to the pre-determined combining rule is as follows:

the compound model = POWER (F_1 , $1/N$) * POWER (F_2 , $1/N$) * ... * POWER (F_N , $1/N$), wherein POWER (F_i , $1/N$) is to perform N^{th} power root calculation on a result analyzed by the model F_i .

4. The method of analysis based on the model according to claim 1, which is characterized in that the number of the pre-determined models is N which is a natural number more than 2; the i^{th} pre-determined model is marked as F_i , and i is a positive integer less than or equal to N; the compound model combined by the various trained models according to the pre-determined combining rule is as follows:

the compound model= $N/(1/F1+1/F2+\dots+1/FN)$.

5. A device of analysis based on a model, comprising processing equipment and storage equipment, which is characterized in that the storage equipment stores a model analysis program which is executed by the processing equipment to implement the following steps:

A. training various pre-determined models based on a preset number of customer information samples;

B. combining the various trained models into a compound model according to a pre-determined combining rule, and after customer information to be analyzed is received, inputting the customer information to be analyzed into the compound model to output an analysis result;

which is characterized in that the step of training the various pre-determined models based on the preset number of customer information samples comprises:

C. in the process of training one pre-determined model, after each training session, respectively inputting all the customer information samples into the current trained model to determine a customer information sample misanalyzed by the model;

D. calculating whether a ratio of the number of customer information samples misanalyzed by the model to the number of all the customer information samples is less than a preset threshold value or not;

E. if the ratio of the number of customer information samples misanalyzed by the model to the number of all the customer information samples is less than the preset threshold value, ending the training of the pre-determined model;

F. if the ratio of the number of customer information samples misanalyzed by the model to the number of all the customer information samples is greater than or equal

to the preset threshold value, increasing the proportion of customer information samples belonging to the same type as that of the customer information samples misanalyzed by the model in the total customer information samples according to a preset ratio increasing degree, decreasing the proportion of customer information samples correctly analyzed by the model in the total customer information samples according to a preset ratio decreasing degree, and then reexecuting the steps C, D, E and F.

6. The device of analysis based on the model according to claim 5, which is characterized in that the number of the pre-determined models is N which is a natural number more than 2; the i^{th} pre-determined model is marked as F_i , and i is a positive integer less than or equal to N; the compound model combined by the various trained models according to the pre-determined combining rule is as follows:

$$\text{the compound model} = (1/N) * F_1 + (1/N) * F_2 + \dots + (1/N) * F_N.$$

7. The device of analysis based on the model according to claim 5, which is characterized in that the number of the pre-determined models is N which is a natural number more than 2; the i^{th} pre-determined model is marked as F_i , and i is a positive integer less than or equal to N; the compound model combined by the various trained models according to the pre-determined combining rule is as follows:

$$\text{the compound model} = \text{POWER}(F_1, 1/N) * \text{POWER}(F_2, 1/N) * \dots * \text{POWER}(F_N, 1/N),$$

wherein $\text{POWER}(F_i, 1/N)$ is to perform N^{th} power root calculation on a result analyzed by the model F_i .

8. The device of analysis based on the model according to claim 5, which is characterized in that the number of the pre-determined models is N which is a natural

number more than 2; the i^{th} pre-determined model is marked as F_i , and i is a positive integer less than or equal to N ; the compound model combined by the various trained models according to the pre-determined combining rule is as follows:

the compound model = $N/(1/F_1 + 1/F_2 + \dots + 1/F_N)$.

9. A computer readable storage medium, which stores at least one computer readable instruction executed by processing equipment to implement the following operation:

A. training various pre-determined models based on a preset number of customer information samples;

B. combining the various trained models into a compound model according to a pre-determined combining rule, and after customer information to be analyzed is received, inputting the customer information to be analyzed into the compound model to output an analysis result;

which is characterized in that the step of training the various pre-determined models based on the preset number of customer information samples comprises:

C. in the process of training one pre-determined model, after each training session, respectively inputting all the customer information samples into the current trained model to determine a customer information sample misanalyzed by the model;

D. calculating whether a ratio of the number of customer information samples misanalyzed by the model to the number of all the customer information samples is less than a preset threshold value or not;

E. if the ratio of the number of customer information samples misanalyzed by the model to the number of all the customer information samples is less than the preset threshold value, ending the training of the pre-determined model;

F. if the ratio of the number of customer information samples misanalyzed by the model to the number of all the customer information samples is greater than or equal to the preset threshold value, increasing the proportion of customer information samples belonging to the same type as that of the customer information samples misanalyzed by the model in the total customer information samples according to a preset ratio increasing degree, decreasing the proportion of customer information samples correctly analyzed by the model in the total customer information samples according to a preset ratio decreasing degree, and then reexecuting the steps C, D, E and F.

10. The computer readable storage medium according to claim 9, which is characterized in that the number of the pre-determined models is N which is a natural number more than 2; the i^{th} pre-determined model is marked as F_i , and i is a positive integer less than or equal to N; the compound model combined by the various trained models according to the pre-determined combining rule is as follows:

$$\text{the compound model} = (1/N)*F_1 + (1/N)*F_2 + \dots + (1/N)*F_N.$$

11. The computer readable storage medium according to claim 9, which is characterized in that the number of the pre-determined models is N which is a natural number more than 2; the i^{th} pre-determined model is marked as F_i , and i is a positive integer less than or equal to N; the compound model combined by the various trained models according to the pre-determined combining rule is as follows:

the compound model= POWER (F_1 , $1/N$)* POWER (F_2 , $1/N$)* ... * POWER (F_N , $1/N$), wherein POWER (F_i , $1/N$) is to perform N^{th} power root calculation on a result analyzed by the model F_i .

12. The computer readable storage medium according to claim 9, which is characterized in that the number of the pre-determined models is N which is a natural number more than 2; the i^{th} pre-determined model is marked as F_i , and i is a positive integer less than or equal to N; the compound model combined by the various trained models according to the pre-determined combining rule is as follows:

the compound model= $N/(1/F_1+1/F_2+\dots+1/F_N)$.