

CLAIMS

1. A method for evaluating a joint training model trained by a plurality of participants jointly, wherein the plurality of participants for training the joint training model do not directly share original sample data, comprising:

receiving, by a server, a model evaluation data request sent by a target device, wherein the target device is a first participant of the plurality participants for jointly training the joint training model, wherein the server is a second participant of the plurality participants for jointly training the joint training model, wherein the model evaluation data request is a request generated according to a preset model index list, wherein the preset model index list comprises an effect index of the machine learning model after being trained by the second participant, and wherein the model evaluation data request comprises data division information indicative of sample identifications, the data division information indicates a division method of samples;

obtaining, by the server, a sample set based on the model evaluation data request, the sample set matching with the data division information comprised in the model evaluation data request, wherein the matching sample set comprises tagged data associated with the joint training model; and

generating, by the server, model evaluation data indicative of the effect index based on training the joint training model with the matching sample set.

2. The method according to claim 1, wherein the obtaining a sample set based on the model evaluation data request comprises:

obtaining a sample set for training the joint training model; and

selecting samples from the sample set according to the data division information, to form a sample set matching with the model evaluation data request.

3. The method according to claim 2, wherein the generating model evaluation data of the joint training model according to the matching sample set comprises:

dividing the matching sample set into a training sample set and a test sample set; and
generating index change information of the joint training model by using the matching sample set, wherein the index change information of the joint training model is used to indicate change of model evaluation data of the joint training model over time.

4. The method according to claim 3, wherein the model evaluation data request further comprises data search permission information, wherein the data search permission information is used to indicate at least one dimension of the index change information;

and wherein the method further comprises:

extracting model evaluation data matching with the data search permission information from the index change information; and

sending the matching model evaluation data to the target device.

5. An apparatus for evaluating a joint training model trained by a plurality of participants jointly, wherein the plurality of participants for training the joint training model do not directly share original sample data, comprising:

a receiving unit, configured to receive a model evaluation data request sent by a target device, wherein the target device is a first participant of the plurality participants for jointly training the joint training model, wherein the apparatus is a second participant of the plurality participants for jointly training the joint training model, wherein the model evaluation data request is a request generated according to a preset model index list, wherein the preset model index list comprises an effect index of the machine learning model after being trained by the second participant, and wherein the model evaluation data request comprises data division information indicative of sample identifications, the data division information indicates a division method of samples;

an obtaining unit, configured to obtain a sample set based on the model evaluation data request, the sample set matching with the data division information comprised in the model evaluation data request, wherein the matching sample set comprises tagged data associated with the joint training model; and

a generating unit, configured to generate model evaluation data indicative of the effect index based on training the joint training model with the matching sample set.

6. A system for evaluating a joint training model trained by a plurality of participating terminals jointly, wherein the plurality of participating terminals for training the joint training model do not directly share original sample data, comprising:

a first participating terminal of the plurality of participating terminals, configured to: obtain a local sample set, wherein samples in the local sample set are tag-free data for training the joint training model; generate a model evaluation data request of a joint training model associated with the local sample set; send the model evaluation data request to a second participating terminal, wherein the second participating terminal and the first participating terminal jointly train the joint training model; and

the second participating terminal of the plurality of participating terminals, configured to receive the model evaluation data request sent by the first participating terminal, wherein the model evaluation data request is a request generated according to a preset model index list, wherein the preset model index list comprises an effect index of the machine learning model after being trained by the second participant, and wherein the model evaluation data request comprises data division information indicative of sample identifications, the data division information indicates a division method of samples; obtain a sample set based on the model evaluation data request, the sample set matching with the data division information comprised in the model evaluation data request, wherein the matching sample set comprises tagged data associated with the joint training model; and generate model evaluation data indicative of the effect index based on training the joint training model with the matching sample set.

7. The system according to claim 6, wherein the first participating terminal is further configured to: generate data division information according to feature dimensions of samples in the local sample set.

8. The system according to claim 6 or 7, wherein the first participating terminal is

further configured to:

obtain model evaluation data of the joint training model from the second participating terminal; and

adjust the joint training model based on the model evaluation data.

9. A server, comprising:

one or more processors; and

a storage apparatus storing one or more programs,

wherein the one or more programs, when being executed by the one or more processors, cause the one or more processors to implement the method according to any one of claims 1 to 4.

10. A computer readable medium storing computer programs, wherein the programs are executed by a processor to implement the method according to any one of claims 1 to 4.