

## CLAIMS

1. A system, comprising:

one or more processors configured to:

receive a request to provide a plurality of data processing methods to a user;

obtain historical data associated with a plurality of historical user selections associated with the plurality of data processing methods, wherein the plurality of historical user selections is associated with the user;

determine a plurality of data processing fingerprint aggregate scores corresponding to respective ones of the plurality of data processing methods based at least in part on the historical data; and

provide the plurality of data processing methods based at least in part on the plurality of data processing fingerprint aggregate scores; and

one or more memories coupled to the one or more processors configured to provide the one or more processors with instructions.

2. The system of claim 1, wherein to determine the plurality of data processing fingerprint aggregate scores includes to:

extract a plurality of feature values from the historical data;

obtain a set of weights corresponding to the plurality of feature values;

sort the plurality of feature values into a plurality of groups according to the plurality of

data processing methods; and

determine a data processing fingerprint aggregate score corresponding to each of the plurality of data processing methods based at least in part on the set of weights and a corresponding group of feature values.

3. The system of claim 2, wherein to determine the plurality of data processing fingerprint aggregate scores further includes converting at least some of the plurality of feature values based at least in part on a set of predetermined mappings.

4. The system of claim 1, wherein to provide the plurality of data processing methods comprises to:

rank the plurality of data processing methods based on the corresponding plurality of data processing fingerprint aggregate scores; and

present the plurality of data processing methods in a list based at least in part on the ranking.

5. The system of claim 1, wherein the one or more processors are further configured to determine whether a user configured default data processing method is stored.

6. The system of claim 5, wherein in the event that the user configured default data processing method is stored, wherein providing the plurality of data processing methods includes presenting the user configured default data processing method.

7. The system of claim 1, wherein the one or more processors are further configured to: receive a user selected data processing method; and determine whether the user selected data processing method is associated with a ranking within a predetermined range of rankings, wherein:

10 in the event that the user selected data processing method is associated with the ranking within the predetermined range of rankings, proceed with further processing based at least in part on the user selected data processing method; and

15 in the event that the user selected data processing method is associated with the ranking that is not within the predetermined range of rankings, send an alert to a client device associated with the user.

8. The system of claim 7, wherein the alert includes an authentication code.

9. The system of claim 8, wherein the one or more processors are further configured to: receive a user input; and determine whether the user input matches the authentication code, wherein:

20 in the event that the user input matches the authentication code, proceed with further processing based at least in part on the user selected data processing method; and

in the event that the user input does not match the authentication code, do not proceed with further processing based at least in part on the user selected data processing method.

10. The system of claim 1, wherein to provide the plurality of data processing methods is further based at least in part on data associated with the user's current data processing.

11. The system of claim 1, wherein to provide the plurality of data processing methods based at least in part on the plurality of data processing fingerprint aggregate scores includes presenting a data processing method of the plurality of data processing methods associated with a highest data processing fingerprint aggregate score of the plurality of data processing fingerprint aggregate scores in a first position of a list of data processing methods.

12. The system of claim 1, wherein the plurality of data processing methods comprises a plurality of payment methods.

13. A method, comprising:

receiving a request to provide a plurality of data processing methods to a user;

obtaining historical data associated with a plurality of historical user selections associated with the plurality of data processing methods, wherein the plurality of historical user selections is associated with the user;

determining, using one or more processors, a plurality of data processing fingerprint aggregate scores corresponding to respective ones of the plurality of data processing methods based at least in part on the historical data; and

providing the plurality of data processing methods based at least in part on the plurality of data processing fingerprint aggregate scores.

14. The method of claim 13, wherein determining the plurality of data processing fingerprint aggregate scores includes:

extracting a plurality of feature values from the historical data;

obtaining a set of weights corresponding to the plurality of feature values;

sorting the plurality of feature values into a plurality of groups according to the plurality of data processing methods; and

determining a data processing fingerprint aggregate score corresponding to each of the plurality of data processing methods based at least in part on the set of weights and a corresponding group of feature values.

15. The method of claim 14, wherein determining the plurality of data processing fingerprint aggregate scores further includes converting at least some of the plurality of feature values based at least in part on a set of predetermined mappings.

16. The method of claim 13, wherein providing the plurality of data processing methods comprises:

ranking the plurality of data processing methods based on the corresponding plurality of processing fingerprint aggregate scores; and

presenting the plurality of data processing methods in a list based at least in part on the ranking.

17. The method of claim 13, further comprising determining whether a user configured default data processing method is stored.

18. The method of claim 17, wherein in the event that the user configured default data processing method is stored, wherein providing the plurality of data processing methods includes presenting the user configured default data processing method.

19. The method of claim 13, further comprising:  
receiving a user selected data processing method; and  
determining whether the user selected data processing method is associated with a ranking  
within a predetermined range of rankings, wherein:

5 in the event that the user selected data processing method is associated with the ranking  
within the predetermined range of rankings, proceeding with further processing based at least in  
part on the user selected data processing method; and

10 in the event that the user selected data processing method is associated with the ranking that  
is not within the predetermined range of rankings, sending an alert to a client device associated  
with the user.

20. The method of claim 19, wherein the alert includes an authentication code.

21. The method of claim 20, further comprising:

receiving a user input; and

determining whether the user input matches the authentication code, wherein:

15 in the event that the user input matches the authentication code, proceeding with further  
processing based at least in part on the user selected data processing method; and

in the event that the user input does not match the authentication code, not proceeding with  
further processing based at least in part on the user selected data processing method.

22. A computer program product, the computer program product being embodied in a non-  
20 transitory computer readable storage medium and comprising instructions for:

receiving a request to provide a plurality of data processing methods to a user;

obtaining historical data associated with a plurality of historical user selections associated  
with the plurality of data processing methods, wherein the plurality of historical user selections is  
associated with the user;

25 determining a plurality of data processing fingerprint aggregate scores corresponding to  
respective ones of the plurality of data processing methods based at least in part on the historical  
data; and

providing the plurality of data processing methods based at least in part on the plurality of  
data processing fingerprint aggregate scores.

## Claims

1. A system, comprising:
  - one or more processors configured to:
    - receive a current request to provide a plurality of data processing methods associated with completing a service to a user, wherein the current request is associated with a plurality of current feature values;
    - obtain historical data associated with a plurality of historical user selections associated with the plurality of data processing methods, wherein the plurality of historical user selections is associated with the user;
    - determine a plurality of data processing fingerprint aggregate scores corresponding to respective ones of the plurality of data processing methods based at least in part on the historical data, comprising to:
      - determine a subset of the plurality of historical user selections, wherein each historical user selection of the subset is associated with a corresponding historical feature value that matches a current feature value that is associated with the current request;
      - sort the subset of the plurality of historical user selections into a plurality of groups according to the plurality of data processing methods; and
      - determine a first data processing fingerprint aggregate score corresponding to a first data processing method based at least in part on a set of weights and a plurality of historical feature values corresponding to a group of historical user selections that corresponds to the first data processing method; and
    - provide the plurality of data processing methods based at least in part on the plurality of data processing fingerprint aggregate scores; and
  - one or more memories coupled to the one or more processors configured to provide the one or more processors with instructions.
2. The system of claim 1, wherein to determine the plurality of data processing fingerprint aggregate scores includes to:
  - extract the plurality of historical feature values from the historical data; and
  - obtain the set of weights corresponding to the plurality of historical feature values.

3. The system of claim 2, wherein to determine the plurality of data processing fingerprint aggregate scores further includes to convert at least some of the plurality of historical feature values based at least in part on a set of predetermined mappings.
4. The system of claim 1, wherein to provide the plurality of data processing methods comprises to:
  - rank the plurality of data processing methods based on the corresponding plurality of data processing fingerprint aggregate scores; and
  - present the plurality of data processing methods in a list based at least in part on the ranking.
5. The system of claim 1, wherein the one or more processors are further configured to determine whether a user configured default data processing method is stored.
6. The system of claim 5, wherein in the event that the user configured default data processing method is stored, wherein providing the plurality of data processing methods includes presenting the user configured default data processing method.
7. The system of claim 1, wherein the one or more processors are further configured to:
  - receive a user selected data processing method; and
  - determine whether the user selected data processing method is associated with a ranking within a predetermined range of rankings, wherein:
    - in the event that the user selected data processing method is associated with the ranking within the predetermined range of rankings, proceed with further processing based at least in part on the user selected data processing method; and
    - in the event that the user selected data processing method is associated with the ranking that is not within the predetermined range of rankings, send an alert to a client device associated with the user.
8. The system of claim 7, wherein the alert includes an authentication code.
9. The system of claim 8, wherein the one or more processors are further configured to:
  - receive a user input; and
  - determine whether the user input matches the authentication code, wherein:

in the event that the user input matches the authentication code, proceed with further processing based at least in part on the user selected data processing method; and

in the event that the user input does not match the authentication code, do not proceed with further processing based at least in part on the user selected data processing method.

10. The system of claim 1, wherein to provide the plurality of data processing methods is further based at least in part on data associated with the current request.

11. The system of claim 1, wherein to provide the plurality of data processing methods based at least in part on the plurality of data processing fingerprint aggregate scores includes presenting a data processing method of the plurality of data processing methods associated with a highest data processing fingerprint aggregate score of the plurality of data processing fingerprint aggregate scores in a first position of a list of data processing methods.

12. The system of claim 1, wherein the plurality of data processing methods comprises a plurality of payment methods.

13. A method, comprising:

receiving a current request to provide a plurality of data processing methods associated with completing a service to a user, wherein the current request is associated with a plurality of current feature values;

obtaining historical data associated with a plurality of historical user selections associated with the plurality of data processing methods, wherein the plurality of historical user selections is associated with the user;

determining, using one or more processors, a plurality of data processing fingerprint aggregate scores corresponding to respective ones of the plurality of data processing methods based at least in part on the historical data, comprising:

determining a subset of the plurality of historical user selections, wherein each historical user selection of the subset is associated with a corresponding historical feature value that matches a current feature value that is associated with the current request;

sorting the subset of the plurality of historical user selections into a plurality of groups according to the plurality of data processing methods; and

determining a first data processing fingerprint aggregate score corresponding to a first data processing method based at least in part on a set of weights and a plurality of

historical feature values corresponding to a group of historical user selections that corresponds to the first data processing method; and  
providing the plurality of data processing methods based at least in part on the plurality of data processing fingerprint aggregate scores.

14. The method of claim 13, wherein determining the plurality of data processing fingerprint aggregate scores includes:

extracting the plurality of historical feature values from the historical data; and  
obtaining the set of weights corresponding to the plurality of historical feature values.

15. The method of claim 14, wherein determining the plurality of data processing fingerprint aggregate scores further includes converting at least some of the plurality of historical feature values based at least in part on a set of predetermined mappings.

16. The method of claim 13, wherein providing the plurality of data processing methods comprises:

ranking the plurality of data processing methods based on the corresponding plurality of processing fingerprint aggregate scores; and  
presenting the plurality of data processing methods in a list based at least in part on the ranking.

17. The method of claim 13, further comprising determining whether a user configured default data processing method is stored.

18. The method of claim 17, wherein in the event that the user configured default data processing method is stored, wherein providing the plurality of data processing methods includes presenting the user configured default data processing method.

19. The method of claim 13, further comprising:

receiving a user selected data processing method; and  
determining whether the user selected data processing method is associated with a ranking within a predetermined range of rankings, wherein:  
in the event that the user selected data processing method is associated with the ranking within the predetermined range of rankings, proceeding with further processing based at least in part on the user selected data processing method; and

in the event that the user selected data processing method is associated with the ranking that is not within the predetermined range of rankings, sending an alert to a client device associated with the user.

20. The method of claim 19, wherein the alert includes an authentication code.

21. The method of claim 20, further comprising:

receiving a user input; and

determining whether the user input matches the authentication code, wherein:

in the event that the user input matches the authentication code, proceeding with further processing based at least in part on the user selected data processing method; and

in the event that the user input does not match the authentication code, not proceeding with further processing based at least in part on the user selected data processing method.

22. A computer program product, the computer program product being embodied in a non-transitory computer readable storage medium and comprising instructions for:

receiving a current request to provide a plurality of data processing methods associated with completing a service to a user, wherein the current request is associated with a plurality of current feature values;

obtaining historical data associated with a plurality of historical user selections associated with the plurality of data processing methods, wherein the plurality of historical user selections is associated with the user;

determining a plurality of data processing fingerprint aggregate scores corresponding to respective ones of the plurality of data processing methods based at least in part on the historical data, comprising:

determining a subset of the plurality of historical user selections, wherein each historical user selection of the subset is associated with a corresponding historical feature value that matches a current feature value that is associated with the current request;

sorting the subset of the plurality of historical user selections into a plurality of groups according to the plurality of data processing methods; and

determining a first data processing fingerprint aggregate score corresponding to a first data processing method based at least in part on a set of weights and a plurality of

historical feature values corresponding to a group of historical user selections that corresponds to the first data processing method; and  
providing the plurality of data processing methods based at least in part on the plurality of data processing fingerprint aggregate scores.