

WHAT IS CLAIMED IS:

1. ~~1. A system, comprising:
at least one processor programmed or configured to:
receive an XML data file, wherein the XML data file comprises data associated with one or more input parameters of a machine learning model;
generate a code generation template based on the data associated with one or more input parameters of the machine learning model included in the XML file, where the code generation template comprises one or more keys associated with one or more parameters of a transaction aggregate for an account of a user, wherein the one or more parameters of the transaction aggregate for the account of the user are based on one or more parameters of a plurality of payment transactions involving the account of the user; and
generate a file of executable code based on the code generation template, wherein the file of executable code comprises instructions that, when executed by at least one processor, cause at least one processor to retrieve transaction aggregate data associated with the transaction aggregate for the account of the user.~~
2. ~~2. The system of claim 1, wherein the code generation template comprises a template for an SQL query and wherein the template for the SQL query comprises the one or more keys associated with one or more parameters of the transaction aggregate for the account of the user.~~
3. ~~3. The system of claim 1, wherein, when generating the file of executable code, the at least one processor is programmed or configured to:
generate the file of executable code that, when executed by at least one processor, causes at least one processor to retrieve transaction aggregate data associated with the transaction aggregate for the account of the user from a predetermined database of a plurality of databases.~~
4. ~~4. The system of claim 1, wherein the at least one processor is further programmed or configured to:
receive a request for risk assessment determination of a payment transaction involving the account of the user from a client device;
retrieve first transaction aggregate data associated with a first transaction aggregate for the account of the user; and
determine a risk assessment score associated with the payment transaction involving the account of the user using the first transaction aggregate data associated with the first transaction aggregate for the account of the user as an input to the machine learning model.~~
5. ~~5. The system of claim 4, wherein, when retrieving first transaction aggregate data associated with the first transaction aggregate for the account of the user, the at least one processor is programmed or configured to:
retrieve short-term aggregation data associated with the first transaction aggregate for the account of the user from a short-term database; and~~

~~retrieve long-term aggregation data associated with the first transaction aggregate for the account of the user from a long-term database.~~

~~6. The system of claim 1, wherein, when retrieving the first transaction aggregate data associated with the first transaction aggregate for the account of the user, the at least one processor is programmed or configured to:~~

~~retrieve the first transaction aggregate data associated with the first transaction aggregate for the account of the user from one or more databases based on executing the file of executable code.~~

~~7. The system of claim 1, wherein, when receiving the XML file, the at least one processor is programmed or configured to:~~

~~receive the XML file from a client device via a web application, and wherein the data associated with one or more input parameters of the machine learning model is based on data received via the web application.~~

~~8. A computer implemented method, comprising:~~

~~receiving, with at least one processor, a data file, wherein the data file comprises data associated with one or more input parameters of a machine learning model;~~

~~generating, with at least one processor, a code generation template based on the data associated with one or more input parameters of the machine learning model included in the data file, where the code generation template comprises one or more keys associated with one or more parameters of a transaction aggregate for an account of a user; and~~

~~generating, with at least one processor, an executable code file based on the code generation template, wherein the file of executable code comprises instructions that, when executed by at least one processor, cause the at least one processor to retrieve transaction aggregate data associated with the transaction aggregate for the account of the user.~~

~~9. The method of claim 8, wherein generating the file of executable code file comprises:~~

~~generating the file of executable code that, when executed by at least one processor, causes at least one processor to retrieve transaction aggregate data associated with the transaction aggregate for the account of the user from a predetermined database of a plurality of databases.~~

~~10. The method of claim 8, further comprising:~~

~~receiving a request for risk assessment determination of a payment transaction involving the account of the user from a client device;~~

~~retrieving first transaction aggregate data associated with a first transaction aggregate for the account of the user; and~~

determining a risk assessment score associated with the payment transaction involving the account of the user using the first transaction aggregate data associated with the first transaction aggregate for the account of the user as an input to the machine learning model.

11. — The method of claim 10, wherein retrieving first transaction aggregate data associated with the first transaction aggregate for the account of the user comprises:

retrieving short-term aggregation data associated with the first transaction aggregate for the account of the user from a short-term database; and

retrieving long-term aggregation data associated with the first transaction aggregate for the account of the user from a long-term database.

12. — The method of claim 10, wherein retrieving the first transaction aggregate data associated with the first transaction aggregate for the account of the user, the at least one processor is programmed or configured to:

retrieve the first transaction aggregate data associated with the first transaction aggregate for the account of the user from one or more databases based on executing the file of executable code.

13. — The method of claim 10, further comprising:

determining whether the risk assessment score associated with the payment transaction involving the account of the user satisfies a risk assessment threshold; and

performing an action based on determining that the risk assessment score associated with the payment transaction involving the account of the user satisfies a risk assessment threshold.

14. — The method of claim 8, wherein receiving the data file comprises:

receiving an XML file from a client device via a web application, and wherein the data associated with one or more input parameters of the machine learning model is based on data received via the web application.

15. — A computer program product comprising at least one non-transitory computer-readable medium comprising one or more instructions that, when executed by at least one processor, cause the at least one processor to:

receive a data file associated with a machine learning model;

generate a code generation template based on receiving the data file associated with the machine learning model, where the code generation template comprises one or more keys associated with one or more parameters of a transaction aggregate for an account of a user, wherein the one or more parameters of the transaction aggregate for the account of the user are based on one or more parameters of a plurality of payment transactions involving the account of the user; and

generate a file of executable code based on the code generation template, wherein the file of executable code comprises instructions that, when executed by the at least one processor, cause

~~the at least one processor to retrieve transaction aggregate data associated with the transaction aggregate for the account of the user.~~

~~16. The computer program product of claim 15, wherein the code generation template comprises a template for an SQL query and wherein the template for the SQL query comprises the one or more keys associated with one or more parameters of the transaction aggregate for the account of the user.~~

~~17. The computer program product of claim 16, wherein, the one or more instructions that cause the at least one processor to generate the file of executable code file, cause the at least one processor to:~~

~~generate the file of executable code that, when executed by at least one processor, causes at least one processor to retrieve transaction aggregate data associated with the transaction aggregate for the account of the user from a predetermined database of a plurality of databases.~~

~~18. The computer program product of claim 17, wherein the one or more instructions further cause the at least one processor to:~~

~~receive a request for risk assessment determination of a payment transaction involving the account of the user from a client device;~~

~~retrieve first transaction aggregate data associated with a first transaction aggregate for the account of the user; and~~

~~determine a risk assessment score associated with the payment transaction involving the account of the user using the first transaction aggregate data associated with the first transaction aggregate for the account of the user as an input to the machine learning model.~~

~~19. The computer program product of claim 15, wherein, the one or more instructions that cause the at least one processor to retrieve the first transaction aggregate data associated with the first transaction aggregate for the account of the user, cause the at least one processor to:~~

~~retrieve short term aggregation data associated with the first transaction aggregate for the account of the user from a short term database; and~~

~~retrieve long term aggregation data associated with the first transaction aggregate for the account of the user from a long term database.~~

~~20. The computer program product of claim 15, wherein, the one or more instructions that cause the at least one processor to receive the XML file, cause the at least one processor to:~~

~~receive the XML file from a client device via a web application, and wherein the data associated with one or more input parameters of the machine learning model is based on data received via the web application.~~

1. A system, comprising:

at least one processor programmed or configured to:

receive an XML data file, wherein the XML data file comprises data associated with one or more input parameters of a machine learning model;

generate a code generation template based on the data associated with one or more input parameters of the machine learning model included in the XML file, wherein the code generation template comprises a template with fields based on the one or more input parameters of the machine learning model, wherein the code generation template comprises one or more keys associated with one or more parameters of a transaction aggregate for an account of a user, wherein the one or more keys associated with the one or more parameters of the transaction aggregate for the account of the user corresponds to one or more features that were used to train and validate the machine learning model, and wherein the one or more parameters of the transaction aggregate for the account of the user are based on one or more parameters of a plurality of payment transactions involving the account of the user; and

generate a file of executable code based on the code generation template, wherein the file of executable code comprises instructions that, when executed by at least one processor, cause at least one processor to retrieve transaction aggregate data associated with the transaction aggregate for the account of the user.

2. The system of claim 1, wherein the code generation template comprises a template for an SQL query and wherein the template for the SQL query comprises the one or more keys associated with one or more parameters of the transaction aggregate for the account of the user.

3. The system of claim 1, wherein, when generating the file of executable code, the at least one processor is programmed or configured to:

generate the file of executable code that, when executed by at least one processor, causes at least one processor to retrieve transaction aggregate data associated with the transaction aggregate for the account of the user from a predetermined database of a plurality of databases.

4. The system of claim 1, wherein the at least one processor is further programmed or configured to:

receive a request for risk assessment determination of a payment transaction involving the account of the user from a client device;

retrieve first transaction aggregate data associated with a first transaction aggregate for the account of the user; and

determine a risk assessment score associated with the payment transaction involving the account of the user using the first transaction aggregate data associated with the first transaction aggregate for the account of the user as an input to the machine learning model.

5. The system of claim 4, wherein, when retrieving first transaction aggregate data associated with the first transaction aggregate for the account of the user, the at least one processor is programmed or configured to:

retrieve short-term aggregation data associated with the first transaction aggregate for the account of the user from a short-term database; and

retrieve long-term aggregation data associated with the first transaction aggregate for the account of the user from a long-term database.

6. The system of claim 4, wherein, when retrieving the first transaction aggregate data associated with the first transaction aggregate for the account of the user, the at least one processor is programmed or configured to:

retrieve the first transaction aggregate data associated with the first transaction aggregate for the account of the user from one or more databases based on executing the file of executable code.

7. The system of claim 1, wherein, when receiving the XML file, the at least one processor is programmed or configured to:

receive the XML file from a client device via a web application, and wherein the data associated with one or more input parameters of the machine learning model is based on data received via the web application.

8. A computer-implemented method, comprising:

receiving, with at least one processor, a data file, wherein the data file comprises data associated with one or more input parameters of a machine learning model;

generating, with at least one processor, a code generation template based on the data associated with one or more input parameters of the machine learning model included in the data file, wherein the code generation template comprises a template with fields based on the one or more input parameters of the machine learning model, wherein the code generation template comprises one or more keys associated with one or more parameters of a transaction aggregate for an account of a user, and wherein the one or more keys associated with the one or more parameters of the transaction aggregate for the account of the user corresponds to one or more features that were used to train and validate the machine learning model; and

generating, with at least one processor, an executable code file based on the code generation template, wherein the file of executable code comprises instructions that, when executed by at least one processor, cause the at least one processor to retrieve transaction aggregate data associated with the transaction aggregate for the account of the user.

9. The method of claim 8, wherein generating the file of executable code file comprises:

generating the file of executable code that, when executed by at least one processor, causes at least one processor to retrieve transaction aggregate data associated with the transaction aggregate for the account of the user from a predetermined database of a plurality of databases.

10. The method of claim 8, further comprising:
receiving a request for risk assessment determination of a payment transaction involving the account of the user from a client device;
retrieving first transaction aggregate data associated with a first transaction aggregate for the account of the user; and
determining a risk assessment score associated with the payment transaction involving the account of the user using the first transaction aggregate data associated with the first transaction aggregate for the account of the user as an input to the machine learning model.

11. The method of claim 10, wherein retrieving first transaction aggregate data associated with the first transaction aggregate for the account of the user comprises:
retrieving short-term aggregation data associated with the first transaction aggregate for the account of the user from a short-term database; and
retrieving long-term aggregation data associated with the first transaction aggregate for the account of the user from a long-term database.

12. The method of claim 10, wherein retrieving the first transaction aggregate data associated with the first transaction aggregate for the account of the user, the at least one processor is programmed or configured to:
retrieve the first transaction aggregate data associated with the first transaction aggregate for the account of the user from one or more databases based on executing the file of executable code.

13. The method of claim 10, further comprising:
determining whether the risk assessment score associated with the payment transaction involving the account of the user satisfies a risk assessment threshold; and
performing an action based on determining that the risk assessment score associated with the payment transaction involving the account of the user satisfies a risk assessment threshold.

14. The method of claim 8, wherein receiving the data file comprises:
receiving an XML file from a client device via a web application, and wherein the data associated with one or more input parameters of the machine learning model is based on data received via the web application.

15. A computer program product comprising at least one non-transitory computer-readable medium comprising one or more instructions that, when executed by at least one processor, cause the at least one processor to:

receive a data file associated with a machine learning model;

generate a code generation template based on receiving the data file associated with the machine learning model, wherein the code generation template comprises a template with fields based on the one or more input parameters of the machine learning model, wherein the code generation template comprises one or more keys associated with one or more parameters of a transaction aggregate for an account of a user, wherein the one or more keys associated with the one or more parameters of the transaction aggregate for the account of the user corresponds to one or more features that were used to train and validate the machine learning model, and wherein the one or more parameters of the transaction aggregate for the account of the user are based on one or more parameters of a plurality of payment transactions involving the account of the user; and

generate a file of executable code based on the code generation template, wherein the file of executable code comprises instructions that, when executed by the at least one processor, cause the at least one processor to retrieve transaction aggregate data associated with the transaction aggregate for the account of the user.

16. The computer program product of claim 15, wherein the code generation template comprises a template for an SQL query and wherein the template for the SQL query comprises the one or more keys associated with one or more parameters of the transaction aggregate for the account of the user.

17. The computer program product of claim 16, wherein, the one or more instructions that cause the at least one processor to generate the file of executable code file, cause the at least one processor to:

generate the file of executable code that, when executed by at least one processor, causes at least one processor to retrieve transaction aggregate data associated with the transaction aggregate for the account of the user from a predetermined database of a plurality of databases.

18. The computer program product of claim 17, wherein the one or more instructions further cause the at least one processor to:

receive a request for risk assessment determination of a payment transaction involving the account of the user from a client device;

retrieve first transaction aggregate data associated with a first transaction aggregate for the account of the user; and

determine a risk assessment score associated with the payment transaction involving the account of the user using the first transaction aggregate data associated with the first transaction aggregate for the account of the user as an input to the machine learning model.

19. The computer program product of claim 17, wherein, the one or more instructions that cause the at least one processor to retrieve the first transaction aggregate data associated with the first transaction aggregate for the account of the user, cause the at least one processor to:

retrieve short-term aggregation data associated with the first transaction aggregate for the account of the user from a short-term database; and

retrieve long-term aggregation data associated with the first transaction aggregate for the account of the user from a long-term database.

20. The computer program product of claim 15, wherein, the one or more instructions that cause the at least one processor to receive the XML file, cause the at least one processor to:

receive the XML file from a client device via a web application, and wherein the data associated with one or more input parameters of the machine learning model is based on data received via the web application.