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(54) Title: SYSTEM, METHOD, AND COMPUTER PROGRAM PRODUCT FOR TIME-BASED ENSEMBLE LEARNING USING SUPERVISED AND UNSUPERVISED MACHINE LEARNING MODELS



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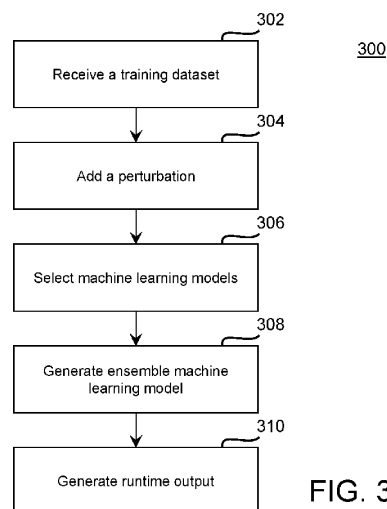


FIG. 3

(57) Abstract: Provided are systems for ensemble learning with machine learning models that include a processor to receive a training dataset of a plurality of data instances, wherein each data instance comprises a time series of data points, add an amount of time delay to one or more data instances to provide an augmented training dataset, select a first plurality of supervised machine learning models, select a second plurality of unsupervised machine learning models, train the first plurality of supervised machine learning models and the second plurality of unsupervised machine learning models based on the augmented training dataset, generate an ensemble machine learning model based on outputs of the supervised machine learning models and unsupervised machine learning models, and generate a runtime output of the ensemble machine learning model based on a runtime input to the ensemble machine learning model. Methods

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