

ABSTRACT

Disclosed in the present application is a multivariable time sequence processing method, comprising: obtaining a time sequence set for mining a causal relationship between variables in a multivariable time sequence, the time sequence set comprising a plurality of first time sequence fragments, wherein each first time sequence fragment has the same length and is a multivariable time sequence; for any first time sequence fragment, inputting the first time sequence fragment into a graph neural network, and predicting a multivariable parameter value corresponding to the first moment, wherein the first moment is the next moment adjacent to the latest moment in the first time sequence fragment; determining an optimization function on the basis of multivariable parameter values corresponding to a plurality of first moments and multivariable sequence tags (true values) corresponding to the plurality of first moments, the optimization function comprising a loss function and a causal matrix of the graph neural network; determining a value of each parameter in the causal matrix by taking minimization of the optimization function as a target; and determining the causal relationship among a plurality of variables according to the value of each parameter.