ABSTRACT

A method of collaborative filtering in combination with time factor includes: establishing an exponential smoothing model; acquiring a time period proposed for the exponential smoothing model, the time period includes a plurality of time cycles; acquiring a plurality of user identifiers and user preference degree values of the user identifiers over a specified product during the plurality of time cycles; performing iterative calculations of the user preference degree values utilizing the exponential smoothing model, and obtaining smoothing results corresponding to the time cycles; generating a sparse matrix utilizing the user identifiers and the smoothing result corresponding to the time cycles, the sparse matrix includes a plurality of user preference degrees to be predicted; acquiring a collaborative filtering model and inputting the smoothing results corresponding to the time cycles into the collaborative filtering model; and training through the collaborative filtering model, calculating and obtaining predictive values of the plurality of user preference degrees to be predicted in the sparse matrix.

FIG. 2