關聯推理神經網路

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摘要

In this study, we proposed the Association Reasoning Neural Network (ARNN) which is derived from ANN, can produce association rules, and open a new approach for association analysis. Based on a numerical and a practical example, some conclusions can be gotten: (1) The reasoning output value of ARNN is proportional to the confidence of the association rules hidden in the data set. (2) As the number of neurons in the hidden layer of ARNN is decreasing, the detection rate and the accuracy rate are decreasing. (3) The ARNN can avoid producing the association rules with low support value by reducing the number of neurons in the hidden layer of the network. (4) The association rules generated by ARNN are similar to those generated by traditional association analysis.

關鍵字：Artificial neural network, association analysis, association rule, data mining