

A Grid-based Medical Decision Support System

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With the rapid development of information technology and Internet, Grid computing has become the trend of volume data processing. In this paper, we propose a feasible medical assistant system that integrates the data mining services and storage capability of many medical institutes. In order to improve the quality of disease prevention and reduce the cost of health care, we take the advantage of data mining techniques to collect related medical information and develop a medical decision support system. We have developed many kinds of grid-based parallel data mining algorithms including association rule and clustering algorithms on our medical platform. In our system, medical institutes can store information in the Data Grid. Then the information is sent to data warehouse for analysis using data mining algorithms on the Grid. Finally, the results are stored in the data warehouse and the Data Grid to help medical faculties make better decisions.

Keywords: Grid, data mining, data warehouse, medical decision support system