Abstract

In the recent years, Privacy preserving techniques have been actively studied in the time-series data in various fields like financial, medical, and weather analysis. We are focusing towards preserving the data through Anonymity and Generalization technique. We first investigate, what's the privacy to be incorporated at the time-series data and after finding the data which need to be preserved various perturbation terminologies were identified and worked out towards secure multi-party computation (SMC) and encryption techniques in the distributed computing. Our project focused towards Generalized technique in which the data will be filtered or generalized in a grouped structure based on time series grouping algorithm and the data will be shown in the approximation format. So that, the data won't get disclosed. The second technique involves the display of data in the graphical format providing no clue about the exact data and approximation technique incorporates an exact preserving of data. The third technique involves the arrangement of data in the binary tree pattern and this provides an efficient way of ordering the data on the performance basis. The proposed system incorporates all the necessary features, In addition we are trying to incorporate security by adding a deformable/detectable noise to this time series data.
References

  - Michael Dairyko,Lara Pudwell,Samantha Tyner,Casey Wynn,“Non-Contiguous Pattern Avoidance in Binary Trees”, Published: Aug 23, 2012,Mathematics Subject Classifications: 05C30,05.

Index Terms

  Computer Science  Security

Keywords

  K-anonymity; Generalization; Secure Multi-party Computation; Binary Tree Pattern; Graphical.