Abstract

Geographical Information System is known for its analytical capability. The spatial analysis function of GIS is the major factors that distinguish the GIS from other information system. This analysis provides with the functions such as spatial interpolation, buffering, and overlay operations [2]. Among all these functions, the focus on the study here is on overlay operation for polygon on polygon, using MapReduce and Random Forest. The capability to overlay multiple data layers in a vertical fashion is the most required and common technique in geographic data processing. In this study, we focus on the comparison between polygon overlay operation with and without spatial index in MapReduce and also proposed method for polygon overlay using Random Forest and its comparison with MapReduce algorithm.

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