Using Treaps for Optimization of Graph Storage

Adjacency matrix is an effective technique used to represent a graph or a Social network comprising of large number of vertices and edges. The intent is of this paper is to optimize the graph storage and mapping without using a large adjacency matrix to represent a large graph. A special data structure Treap, a combination of binary search tree and heaps has been used as a replacement to a large adjacency matrix. It has been experimentally evaluated that the proposed approach significantly improves the space occupied by adjacency matrix and helps the graph to grow dynamically without affecting the current data structure.

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**Index Terms**

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**Keywords**

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