



Xiao Qin <qinxiao@gmail.com>

Pruning 1.1 results

4 messages

Liang Tang <liang.xjtu@gmail.com>

Fri, Sep 20, 2013 at 11:02 PM

To: jeffku jeffku <weishinn@gmail.com>, Xiao Qin <xqin@auburn.edu>, Haiquan Chen <hachen@valdosta.edu>

Hi all,

I spent dozens of hours to reorganize my single-machine program, and test the correctness by visualizing the data.

Finally, I got the Pruning 1.1 result just now. Haiquan's induction is right. The data shape is very important when we test the effect of Pruning rules.

The first experiment set: sigma:0.02, object width ≤ 0.1
4980 objects are pruned out of 5000.

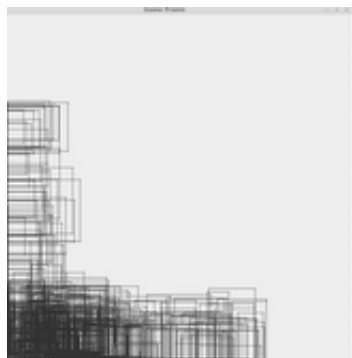
The second experiment set: sigma:0.05, object width ≤ 0.2
4828 objects are pruned out of 5000.

The second experiment set: sigma:0.1, object width ≤ 0.3
4570 objects are pruned out of 5000.

Attached are the three visualized pictures.

I will keep on working on Pruning 1.2 and 1.3.

3 attachments



sigma_01.png
17K



sigma_002.png
7K



sigma_005.png
10K

Xiao Qin <qinxiao@gmail.com>

Mon, Sep 23, 2013 at 9:21 AM

To: Liang Tang <liang.xjtu@gmail.com>

Cc: jeffku jeffku <weishinn@gmail.com>, Xiao Qin <xqin@auburn.edu>, Haiquan Chen <hachen@valdosta.edu>

Dear Liang:

The preliminary results are very promising. The pruning policies coupled with the parallel algorithm will lead to a good skyline solution.

Xiao

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Liang Tang <liang.xjtu@gmail.com>

Mon, Sep 23, 2013 at 9:19 PM

To: Xiao Qin <qinxiao@gmail.com>

Cc: jeffku jeffku <weishinn@gmail.com>, Xiao Qin <xqin@auburn.edu>, Haiquan Chen <hachen@valdosta.edu>

Let me list some results and discuss with u guys tomorrow.

experiment setting(sigma 0.1, width is at most 0.3), I generated a three-dimensional dataset, and it prunes 4018 objects out of 5000 (Prune 1.1).

In the above settings (three dimension), 2651 instances are pruned out of 3654 instances. (These instances can not become skyline point. Prune1.2)

If we reduce it to two dimensions(same experiment setting with the above one), 599 instances are pruned out of 709 instances.

Another dataset: anti-correlated 50k objects. sigma:0.1, width: at most 0.3. two-dimensional
prune 1.1: 46140 objects are pruned out of 50000.
prune 1.2: 9122 instances are pruned out of 9968.

Ten dimensional-data: anti-correlated 50k objects. sigma:0.1, width: at most 0.3.
prune 1.1: 263 objects are pruned out of 50000.
prune 1.2: 6162 instances are pruned out of 100552.

one problem: how to partition automatically. different dimesion-> different number of partition number.
[Quoted text hidden]

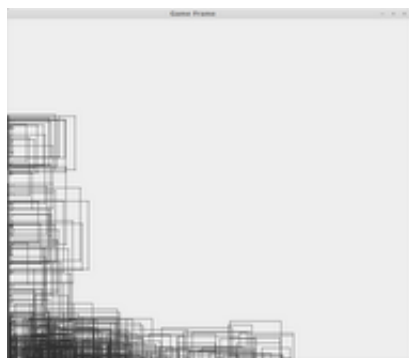
3 attachments



rule_2.png
22K



notSkyline_area_0.png
17K



remainedInPrune2.png
14K

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