Shortest Path Cache

August 4, 2011

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Abstract

short description of what we do, why this is an interesting/challenging problem, and how well we solve the problem (key results, mention theoretical guaranties.)

1. Introduction

Introduce problem and a running example to use throughout the paper. clarify why we need to solve this problem.

2. Related Work

Introduce related work, group them by similar work and tell what they do and why their approches can not solve our problem.

3. Problem

Introduce the problem setting in more detail than in the introduction and formally define the problem and what exactly we aim to solve in this paper.
Introduce the overall setting which our solution work in and give a table of notation for reader reference.

4. Baseline Competitors

Intro to section; Why do we have baseline competitors, which ones will be introduced, and why those?

5. Contribution

Overall devide into 2 sections, each focused on the methods solving goal 1 and 2 respectively.
goal 1 (reduce time executing SP algo)
static cache
partition map
goal 2 (reduce time on overhead)
cache structures: simple array of paths, inverted list on array of paths, sharing subpaths (either in array form or as a graph)

6. Analysis

Write theoretical analysis to show how hard the problem is to solve for Shortest Path (SP) cacheing.

7. Experiments

Introduce what data is used and how we generate syntetic data
Introduce standard test parameters for the tests to follow.
Write experiments to examine performance of goal 1 & 2