Abstract

Shortest path algorithms play a vital role in real world applications. In this paper a cache friendly implementation for Bellman Ford algorithm to solve single source shortest path and all pair shortest path algorithm is proposed. The proposed algorithm is compared with sequential algorithm in terms of execution time, cache hit, ALUPacking and ALUBusy. This algorithm is also tuned with execution environment to yield maximum performance. In this paper we have discussed all above factors in terms of framework called OpenCL.

References


Index Terms

Computer Science, Algorithms

Keywords

Bellman-Ford, OpenCL, ALUPacking, ALUBusy, Cache hit.