GPGPU PROGRAMMING PROJECT PROPOSAL

M.Zubair & Azam Khan

**Algorithm Selected :**

* APRIORI (FREQUENT ITEMSET MINING)

**ALGORITHM BACKGROUND :**

Apriori is a data mining domain algorithm used to extract association rules between items in a transaction . Its counterparts are FP-Growth but selection of this particular algorithm is motivated due to its heavy-time scaled computation due repetitive searching over the data tuples

**PROJECT DESCRIPTION :**

In this project we will implement the Apriori Algorithm on parallel domain consideration with the target to be executed on GPU . The implement methodology will be selected and finalized after paper reviews . Along with the implementation comparison of sequential and parallel execution of this implemented algorithm will be our target for project report

**CONFERENCE TARGET :**

Comparison results between Algorithm implementation techniques

Bibliography

J. Ghofrani, A. Bozorgmehr, and A. Panah, “A Fast Algorithm Based on Apriori Algorithms to Explore the Set of Repetitive Items of Large Transaction Data,” *Proceedings of the 2nd International Conference on Compute and Data Analysis - ICCDA 2018*, 2018.

M. N. Mlambo, N. Gasela, and M. B. Esiefarienrhe, “Implementation and Analysis of Enhanced Apriori Using MapReduce,” *2018 International Conference on Advances in Big Data, Computing and Data Communication Systems (icABCD)*, 2018.

A. L. Sayeth Saabith 1\* , Elankovan Sundararajan 2 and Azuraliza Abu Bakar “A Paralle

Apriori-Transaction Reduction Algorithm Using Hadoop-Mapreduce in Cloud”

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Chandaka Babi Visakhapatnam Dr. M. Venkateswara Rao Professor “Mining Frequent Patterns from Big”

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Y. Wang, T. Xu, S. Xue, and Y. Shen, “D2P-Apriori: A deep parallel frequent itemset mining algorithm with dynamic queue,” *2018 Tenth International Conference on Advanced Computational Intelligence (ICACI)*, 2018.

F. Zhang, Y. Zhang, and J. Bakos, “GPApriori: GPU-Accelerated Frequent Itemset Mining,” *2011 IEEE International Conference on Cluster Computing*, 2011.