UNIVERSITY OF SOUTH FLORIDA

Major Research Area Paper Presentation

GPU Accelerated Community Detection on Social Stream

by

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For the Ph.D. degree in Computer Science and Engineering

The natural properties of information are recency, relevance, valuation, and validation. This gives rise to the utilization of streaming data instead of traditional static data in analysis. The trends of analysis have been shifted from the feasibility of the computation to the valuation of the data products. As long as data collection is not a big issue and the performance of the computation is acceptable, streaming mechanism provides more valuable results than traditional batch processing. Streaming data comes with several characteristics: one is that time window can be updated within a small interval, the other one is that the random access to the entire data set is not feasible. However, other than the obstacle in high performance computation, the preparation of raw data also needs discussion. Especially, for graph streaming, data are naturally linked to each other so that, when only a snapshot of the data set can be captured, some of the connections are cut, which leads to information loss. In this presentation, we will discuss issues in sample space preparation in graph, problem modeling in graph, and graph analysis.

Thursday, September 24th, 2020 1:00PM Online (Blackboard Collaborate) Please email shenlu@usf.edu for more information

The Public is Invited

<u>Examining Committee</u> Les Piegl, Ph.D., Major Professor Richard Segall, Ph.D. Tempestt Neal, Ph.D. John Licato, Ph.D. Robert Karam, Ph.D. Kandethody Ramachandran, Ph.D.

Yu Sun, Ph.D. Graduate Program Director Computer Science and Engineering College of Engineering Sudeep Sarkar, Ph.D. Department Chair Computer Science and Engineering College of Engineering

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