UNIVERSITY OF SOUTH FLORIDA

Defense of a Doctoral Dissertation

Computing GroupBy and Aggregate in Massively Parallel Systems

by

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

The semiconductor industry has mainly exploited two routes for designing microprocessors. The one route aims to speed up the performance of latency-oriented processing. In contrast, the many-thread route concentrates on throughput-oriented improvement of parallel processing. Many-thread microprocessors, such as Graphics Processing Units (GPUs), are leading computing capability for this past a decade.