CS 4098D Project Part 1

Performance Optimization in Heterogeneous ISA CMPs

Heterogeneous multicore architectures have the potential for high performance and energy efficiency. These architectures may be composed of small power-efficient cores, large high-performance cores, and/or specialized cores that accelerate the performance of a particular class of computation. In such a way of execution, the program state must be migrated from one architecture to another. However, the system performance may not be efficient in this case and even peak performance might be compromised.

Our work with this project will explore different machine learning based scheduling algorithms to schedule the program on a core so that the performance can be optimized. We will be examining this for different granularities of a program.

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