In-Processor Garbage Collection Message Passing

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1 Major Changes

Change 1: Project has been migrated to be about message passing (i.e. Message Passing within the same framework)

Change 2: Project will be completed within a simulator rather than directly with hardware

2 What have you accomplished so far

1. Learned C++
2. Gained familiarity with the inner workings of zsim (i.e. the simulator)
3. Identified what I will actually be doing next semester

3 Surprises

The biggest surprise was difficulties in getting the memory management system set up, which was a prerequisite for me to begin working on the project. Thus, we had to change the scope to something more reasonable.

3.1 Revisions to 15-400 milestones

February 1st: Zsim memory managements system working
February 15th: Tree implementation is working within zsim
March 1st: Single reader-writer queue (with one cache line) implemented through zsim
March 22nd: Support for dynamically sized queues integrated
April 5th: Support for multiple writers integrated
April 19th: Producing workloads for the rwqueue for testing done
May 3nd: Testing complete and queue finished

4 Resources Needed

None.