Air Force Institute of Technology Department of Electrical and Computer Engineering Distributed Software Systems (CSCE 689)

Homework 3 Due Date: 10-February-2020

February 8, 2020

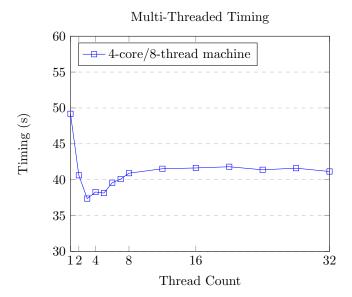
2d Lt Josh Larson Page 1 of 1

Code Location

 ${\bf Github\ Link:\ https://github.com/Josh-Larson/AFIT-CSCE689-HW3-S}$

Question 1

As can be seen in the figure, performance levels off at eight threads—which is the number of hyperthreaded cores on my machine. However the optimal thread count is 3 because of memory caching and contention issues between the spawend threads and the main threads. After the optimal is slowly increases until the level-off point at 8 threads.



Question 2

Below is the max unsigned int evaluation for 5 trials. There is a small variation between 40.1s and 41.5s, which can be accounted for by processor interruptions and possible cache misses spread out over a longer period of time.

