|  |  |  |
| --- | --- | --- |
| **Data Set** | **Single Thread Performance (msec)** | **Multithreaded Performance (msec)** |
| 100 | 1787 | 3113 |
| 250 | 5144 | 7654 |
| 500 | 10499 | 14936 |

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CMSC 132

Nelson

Order Processor Performance Analysis

Given the data set, it appears that single thread performance is consistently faster than the multithreaded procedure. After doing some research online about the hardware that my laptop was running on (the device I was using throughout this project), it appears that a function related to the Intel CPU, called Turbo Boost™, may contribute to this outcome. The feature kicks in when a single core is under heavy load, and significantly boosts the performance (in the case of my specific CPU, the Intel i5-7Y54, performance is almost tripled with the boost). During the single thread runs, this could contribute to noticeably faster performances; as a single core would be under a heavy load.