**CSCI 551 – Numerical and Parallel Programming: Exercise #2**

**Grid and Matrix Processing with Shared Memory Threading**

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**74/100**

**Grading Checklist for Rubric**

[30 points] Simple POSIX threading code:

|  |  |  |
| --- | --- | --- |
| Problem | Score 0…10 | Comments |
| A | 8 | Good documentation but sum is incorrect. |
| B | 10 | Great |
| C | 10 |  |
| TOTAL | 28 |  |

[30 points] Finding the largest prime:

|  |  |  |
| --- | --- | --- |
| Problem | Score 0…10 | Comments |
| Speed-up | 9 | Great. Good explanation of the nature of the problem being the cause for lack of speed up. Could show multiple runs to show if you indeed get speed up with more threads. |
| Timing | 10 |  |
| Verification | 10 |  |
| TOTAL | 29 |  |

[40 points] 90 degree matrix rotation:

|  |  |  |
| --- | --- | --- |
| Problem | Score 0…10 | Comments |
| Algorithm & Code quality | 7 | Nice strategy and start – debug the segfault with gdb and come by office hours if you need me to show you how to use gdb |
| Speed-up | 5 | OpenMP added, but not tested |
| Timing | 0 | Not done |
| Verification | 5 | Up to point of a segfault |
| TOTAL | 17 |  |

**Rubric for Scoring for scale 0…10**

|  |  |
| --- | --- |
| **Score** | **Description of reporting and code quality** |
| 0 | No answer, no work done |
| 1 | Attempted and some work provided, incomplete, does not build, no Makefile |
| 2 | Attempted and partial work provided, but unclear, Makefile, but builds and runs with errors |
| 3 | Attempted and some work provided, but unclear, build warnings, runs with no apparent error, but not correct or does not terminate |
| 4 | Attempted and more work provided, but unclear, build warnings, runs with no apparent error, but not correct or does not terminate |
| 5 | Attempted and most work provided, but unclear, build warnings, runs with no apparent error, but not correct or does not terminate |
| 6 | Complete answer, but does not answer question well and code build and run has warnings and does not provide expected results |
| 7 | Complete, mostly correct, average answer to questions, with code that builds and runs with average code quality and overall answer clarity |
| 8 | Good, easy to understand and clear answer to questions, with easy to read code that builds and runs with no warnings (or errors), completes without error and provides a credible result |
| 9 | Great, easy to understand and insightful answer to questions, with easy to read code that builds and runs cleanly, completes without error, and provides an excellent result |
| 10 | Most complete and correct - best answer and code given in the current class |