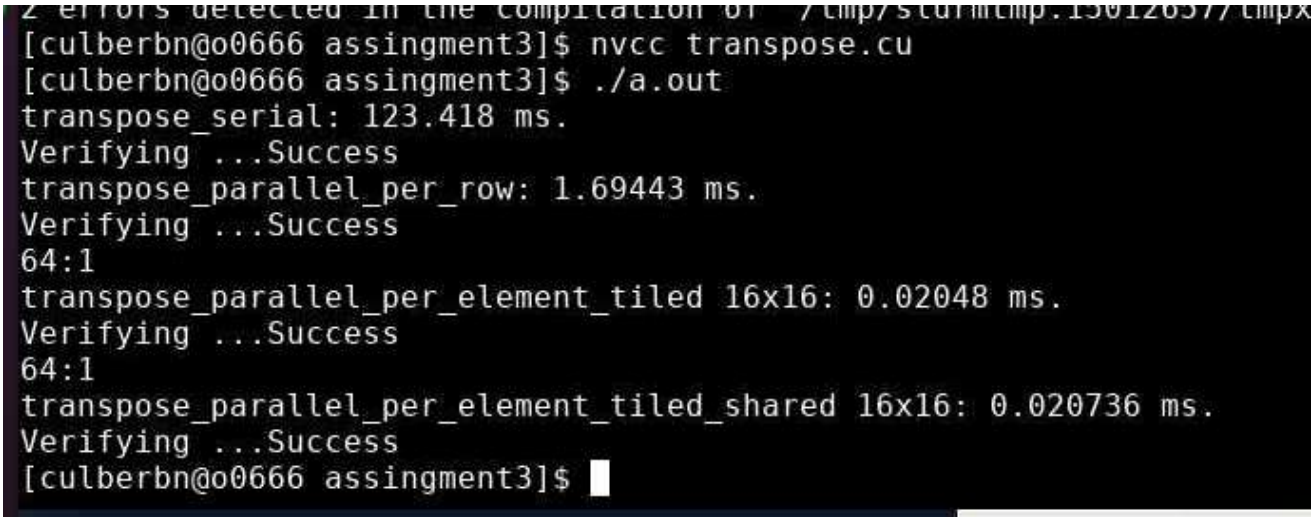
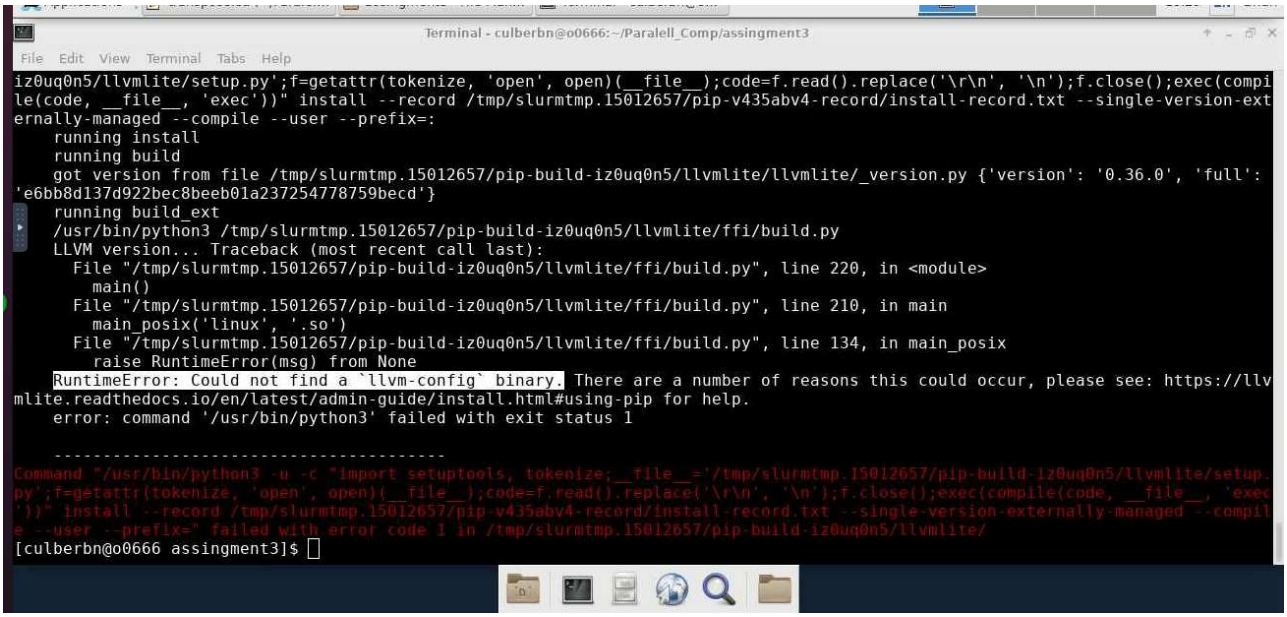
Assignment 3 Write Up

Wednesday, September 29, 2021 3:33 PM

For this assignment getting the blocked version wasn't too bad to figure out. All you had to do was get the individual point you worked on and transposed it. Overall the first version had significant improvement over the serial and parallel per row versions. For the shared memory version, I decided to share the variable out and in across all the threads and set the variable out once it was finished. This had an increase in time to complete but very slight increase.
This assignment also showed me that my GPU may not be compatible with Cuda. This could have been the cause of the errors in the last assignment.



For the extra credit I did design the input array for the transpose function. Unfortunately I could not run it on the OSC because I could not install Numba with pip. It gives the following error:



From what I am seeing from this, it cand find the binary for the build for Numba. After looking this up I found this GitHub help page witch find the same issue and discuss it. The problem was solved with upgrading pip to version 19.0 and up. This is the pip version on my OSC

After finding this out I can only get as far on my local machine that is not Cuda compatible. Therefore I cannot complete the extra credit.