Journal Report 12
12/9/19-12/12/19
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Period 4, White

Daily Log

Monday December 9

I was sick today.

Tuesday December 10

I was sick today.

Thursday December 12

I was able to generate a point cloud and show the distance to different objects, so my winter goal is mostly complete. However, I am not sure how to display the point cloud itself, so I researched the npy file format, which is a way to show points in 3D.

Timeline

Date	Goal	Met
Week of 11/28	Calculate transformation matrices from chessboard corner detection for rectification	
Week of 12/5	Continued from previous week	Yes, I was able to successfully complete all calibration steps, and I worked ahead on block matching
Week of 12/12	Finish block matching and point cloud generation	Yes, the block matcher is fully working
Week of 12/19	Finish any necessary parts for the winter goal, clean up point cloud generation code	
Week of after winter break	Figure out how to compile opencv code to dll in order to use with Unity	

Reflection

Even though I was sick the first two days this week, since I worked ahead last week, I was able to complete block matching in one day. Now, the only thing left is to fix the output file formatting and any quality of life changes to make it easier to use with Unity. In order to work with Unity, the C++ code has to all be organized within functions that can return the point cloud directly back to the Unity application, and then compiled to a dll. I have to figure out how to display the generated point cloud, as right now, it just outputs the X, Y, and Z coordinates to a text file.

Winter Goal

My goal is to have working point cloud generation, and to be able to store these distances at different pixel locations.