Worklog

10:00
Opened the pdf doc, started to analyse the code in create_frames.py. Seems like we are uploading only 3 frames to AWS and then passing it onto scale for ground truth.

10:25
Downloaded Kitti dataset from external link, meanwhile checking out the scale sensor fusion docs.

11:00
Everything downloaded, now for the fun part. I do not know what camera intrinsics or extrinsics is

11:25
Spent the last 20 minutes trying random things, decide to put it to rest and went to wikipedia to learn about Camera matrices

12:00
Understand the basic idea, looked at the PyKitti source code to see how the calibration values are parsed from the dataset files

12:10
Got camera intrinsics to work Merely just reading a matrix from PyKitti calibration output

13:00
Stuck on extrinsics. Cannot understand what the coordinates for the LiDAR are..

13:10
Realized the LiDAR coordinates are basically world coordinates, hence 0,0,0
Now we just dot product the matrix with the relative coordinates of the camera to get camera_position

14:00
Cannot figure out rotation. Scale API docs suggest it is a quaternion object, so I begin watching 2blue1brown videos on quaternions

14:00-19:00
Cannot figure out why my quaternion is wrong! It is literally just the extrinsic matrix passed off to the quaternion converter from PyQuaternion. Hmm…

19:50

Finally realized that Scale API takes quaternion axis different from the Kitti dataset.... I just have to transpose the matrix to get the answer!

19:55
It works!