Paper

* <https://arxiv.org/pdf/2210.00379.pdf>

## Nerf Theory

* (x,y,z) is the angle youre at
* Viewing direction = vector from what initial position youre trying to look at the object
* Output 1: C = (r,g,b)
* Output 2: Volume density (s)

Steps

1. Takes input x and outputs ro and a high dimensional feature vector
2. Feature vector then concatenated with direction d
3. Passed into additional mlp wichih outputs c . ie equation C(r) and T(t)

## Quality assessment metrics

* SSIM

Section3 is where most of the beef is at

## Section 3

* MipNerf
  + Unbounded means it could be something that extends a long distance away
    - Ie picture of car in background.
* RefNerf
* Ray Proior Nerf
* PointNerf
* SNeS
* S3 Nerf
* Sparse neural voxel grid
* fastNerf
* PlenOctree

Other resources

* <https://github.com/labmlai/annotated_deep_learning_paper_implementations/blob/master/papers/2003.08934.pdf>