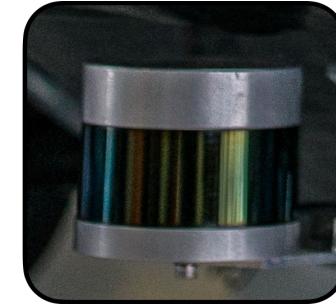


Intuition for Goal #2



Camera: 37 hz

LiDAR: 10 hz



50 mph



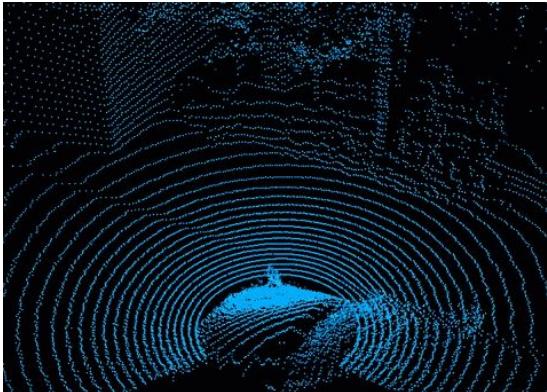
200 mph



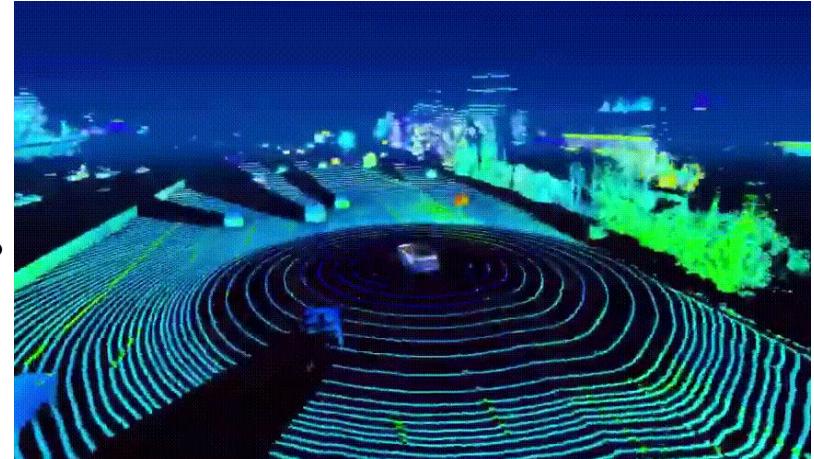
Goal #2



37hz

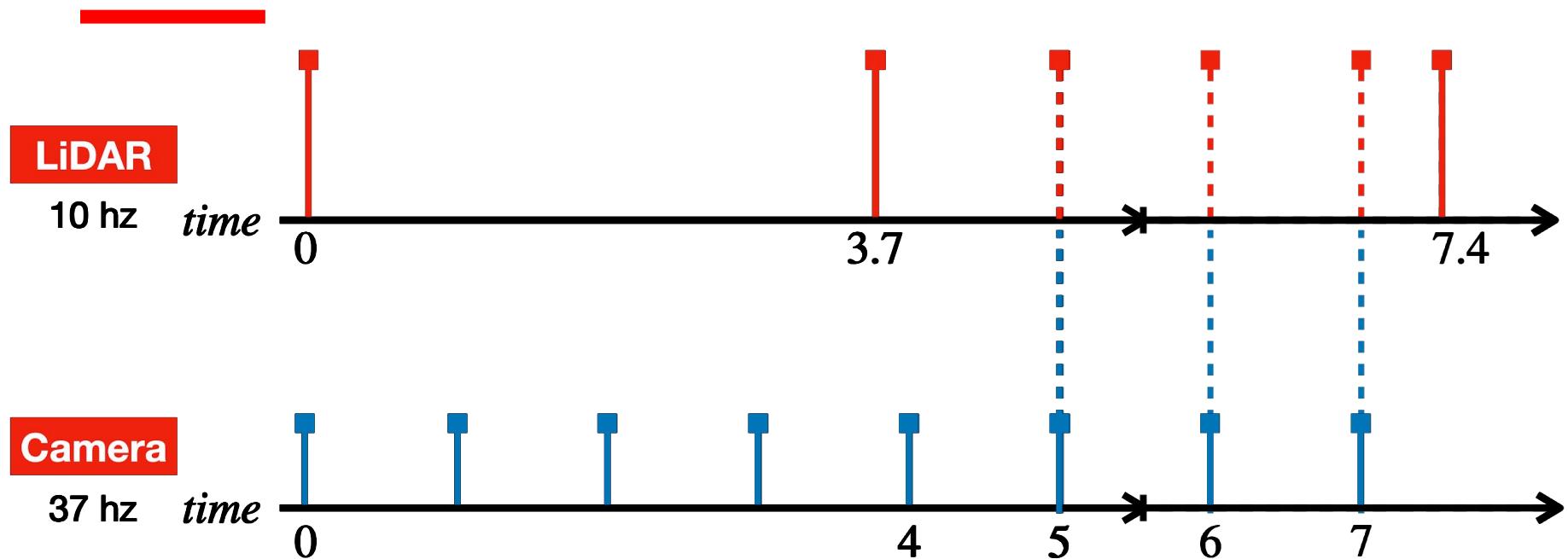


10hz

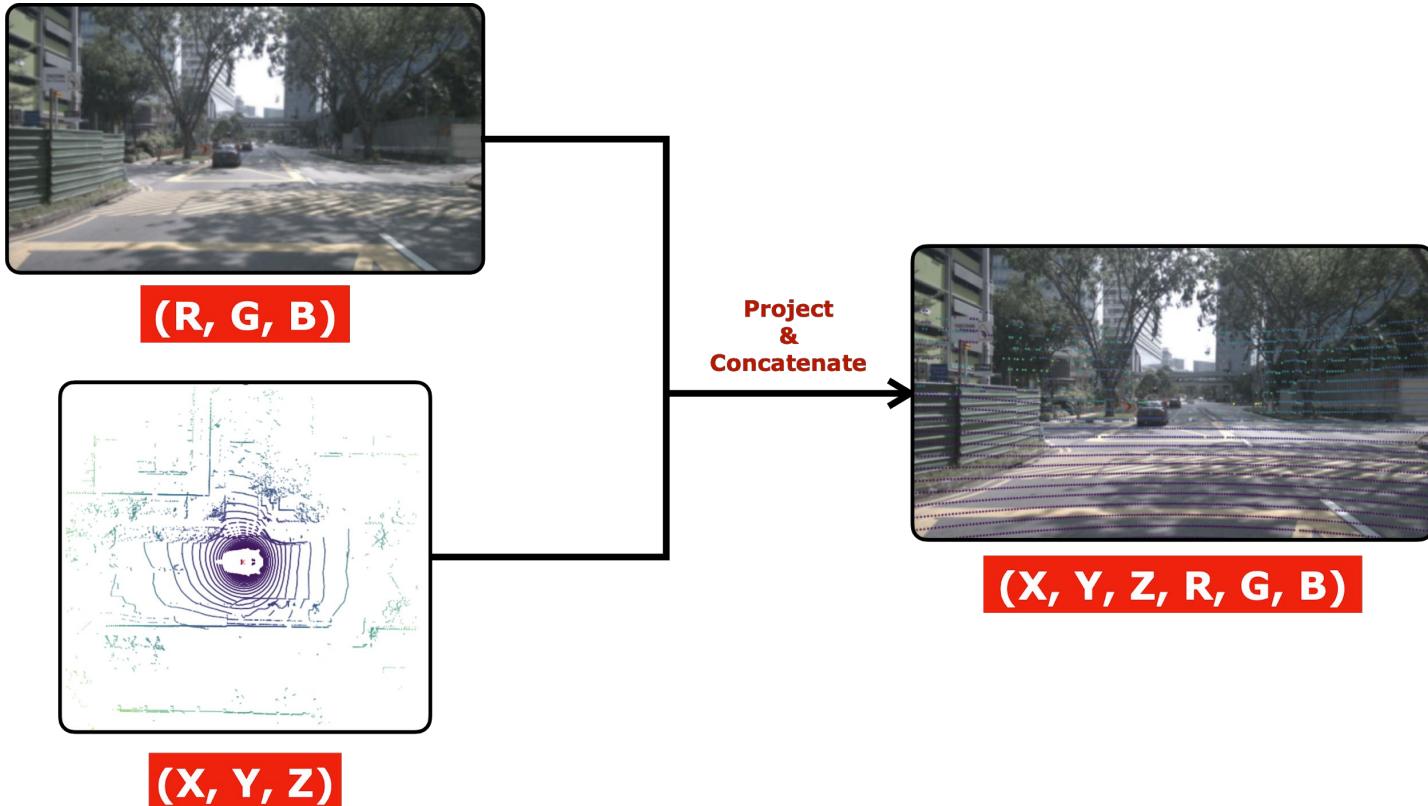


Goal # 2: Faster LiDAR

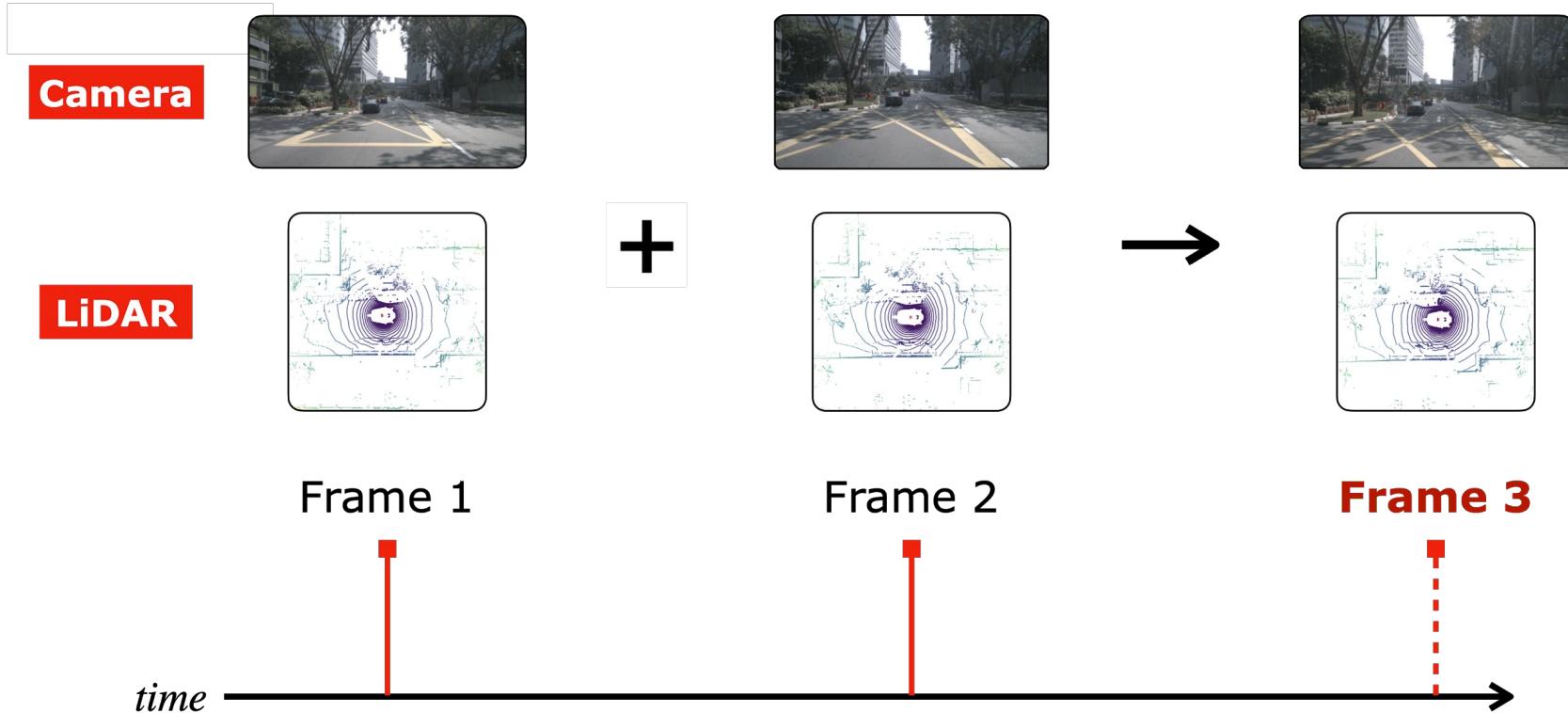
Goal #2: Faster LiDAR



Design of Faster LiDAR



Design of Faster LiDAR



Performance

Predictive Model	MSE	FPS(Hz)
Single Input	1.861460	22
Double Input	1.060083	16

Visualization

Ground Truth



Prediction



Discussion on Future Improvement

- Use more history information to predict future frames
- Improve efficiency
 - a. Convert code to C++ for faster inference
 - b. Neural Network Channel Pruning
 - c. Int 8 Quantization