

WEEKLY REPORT and MEETING AGENDA

Report #:9_____ Project Name: Traffic Object/Lane Detection - 2A1_____

Date:11/121/2022_____ Prepared by: Viet Nguyen_____

Agenda for the weekly meeting

1. Fulfill final requirements on ROS
2. Have the image show up on ROS GUI accurately and efficiently
3. BD100k testing comparison versus Dark Nets and Hybrid Nets
4. Optimize ros frame rate to our needs
5. Fix Color on camera for lane detection part, it is already implemented on the object detection side

Accomplishments during this period

1. ROS message creation and integration to image_subscribers a success
 - o BoundingBox.msg
 - o BoundingBoxes.msg
 - o ObjectCount.msg
2. Publishing ROS as a message correctly.
3. HybridNets working as a node in ROS using python3 and source setup.bash
4. HybridNets can display bounding box as an image
5. Fixed color on processed images
6. Progress made on Final Report
7. Continued progress made on Dockerfile
8. Data collected from HybridNets and Yolo on Mcity1.bag regarding object detection
9. Further documented the project through README

Plans for next period

1. Continue testing and evaluating data
2. Finish final report
3. Make our ROS node run faster and more accurate
4. Batch testing of Mcitybag and comparisons to DARKNETS

Project management status

1. Schedule and milestones: Major progress on ROS node, demo status, and ros messages.
2. Teamwork: Many meetings this week, up to 5-7
3. Purchases: No new purchases have been made beyond one Google Collab Subscription (\$10 a month)

Minutes from previous meeting

- Debugged our codebase to enable roscore to work as intended.
- Attempted to make the bounding boxes more apparent to the eye.
- Attempted to implement ONNX-HybridNets as alternative option for users.
- Learned how to retrieve the accuracy readings to create data comparisons.
- Progress made on ROS messages and retrieving evaluation data
- Progress made on final report