Unusual Objects on Road

Team (Group 32) name: Teaching AutoPilot to Dodge

Basil Al Zamil, Xilun Guo, and Tanner Fry

CS 461: Change Log

Oregon State University

Abstract

This is just a small latex file for a Change Log of all of the files in our report.

CONTENTS

1 Change Log requirement doc

- Updated the requirements of collecting our own data, and what we need to teat specifically in section 1.
- Minor grammar issues fixed in section 1 and 2.
- Updated the specific steps we are also required to do but we didn't realized before in section 3.
- Minor changes on the timeline based on what we have done till now
- Added change log section.

Xilun Guo works log above.

- added objects that we are aiming to examine.

Basil Al Zamil's work log above.

2 Change Log Tech Review Tanner

- Major changes to
- Minor updating to definitions for accuracy.
- Updated algorithms testing section to exclude camera blind spots, not something in our scope as of now.
- Updated hardware and software information based on products we have used for certain tasks
- Made changes to reflect that we are going to be testing algorithms from different developers and that those algorithms have their own machine learning knowledge base.
- Added change log section

3 Change Log Design Doc

- Revised goals to be more focused on algorithm testing quality over number of algorithms tested.
- Minor updating to definitions for accuracy.
- Updated algorithms testing section to exclude camera blind spots, not something in our scope as of now.
- Updated hardware and software information based on products we have used for certain tasks
- Made changes to reflect that we are going to be testing algorithms from different developers and that those algorithms have their own machine learning knowledge base.
- Added change log section

Tanner Fry works log above.

- Made changes to algorithms testing that what are the main steps on the whole process as well as the methods to test actual images with passing or failing result images output.
- Minor updating the testing tasks and the method to overcome them.
- Giving more details on result data analysis.

- Revised the conclusion to summarize what we did for designing what technologies we are using with key words.

  Xilun Guo works log above.

- Edited Technology Overview: Algorithm testing. Added more details of the test cases of our testing material, which are video footage, and included different environments and weather conditions.
- Changed the night vision specification, since the camera does not support night vision such as inferred.
- Changed the processes of the transferring video from the SD cars, since the SD card fills up faster than expected.
- Changed the location of the video footage from Oregon to Oregon, Nevada, and California.
- Changed plans for external video footage, such as request videos from Oregons State Police, since the videos collected were more than enough.

  Basil Al Zamil works log above.

4 Change Log Jacky Tech Review

Overall: Revised the whole document because I thought the algorithms can test videos, but we have to extract from videos to images, which the algorithms can run with.
Redesign the technologies we would use for each condition testing.
Add more details on how we analyze expected result images by comparing to the actual images.
Improve some formating stuffs and grammar issues.
More clearly describe how we organize data, process testing, and apply technologies to analyze.

5 Change Log Basil Tech Review

- Updated the overview to target the failure of the algorithm, which is the goal of our project.
- Deleted the inferred camera information, since we are not using inferred cameras.
- Added a downfall of windshield cameras
- We thought that high definition camera are better. However, Dr. Li informed us that we only need to have a 1080p camera, and that a higher definition would not make a difference in the accuracy of the object recognition software.
- updated the out camera and SD card writing speed, which met the criteria of the tech review research.
- updated with the decision of where to mount the camera, which was simply on the windshield of the car.
- As for Multiple Cameras, we ended up using one camera.