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**Daily Logs**

**Monday, September 16:**

Last week, I couldn’t install tkinter on my personal Windows laptop. To fix this today, I installed Pycharm on a Syslab Linux computer and was able to successfully install tkinter there.

**Tuesday, September 17:**

I had to debug the BBox Label Tool. The BBox Label Tool is supposed to open a program that lets me draw bounding boxes around images. At this point, it was opening properly, but didn't actually display any of the images that I could draw on. To fix this, I first had to update the BBox Label Tool file names to match the ones I have on the Syslab computer, which are a bit different from the ones on my personal laptop. To do this, I had to look up Linux commands to figure out where my files were saved and what their path names were. Also, the Bbox Label tool requires only jpeg images. I had saved most of my images as jpg, which is very similar to jpeg, but realized that this would not work because the BBox Label Tool looks for the string “.JPEG” at the end of an image file, rather than looking at the image type. To fix this, I changed the ".JPEG" string so it said ".jpg".

**Thursday, September 19:**

I successfully debugged the BBox Label Tool and was able to use it to draw bounding boxes around my training set images. The main error was that the BBox Label Tool was trying to display example images that showed how to properly use the BBox Label Tool. I did not have a folder saved for example images, so my program never finished running the method that loaded all images for the BBox Label Tool, which included my images and the example images. I fixed this by deleting the part of the code that was supposed to load the example images. This error was a bit difficult to find because it was not a problem with my path names, as I had suspected, but rather a problem in a part of the code I didn't know was there.

**Timeline:**

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| --- | --- | --- |
| Week | Goal | Met? |
| 9/3-9/5 | 1. Research types of handicap parking passes  2. Create a training set for handicap parking passes in that hang in car windshields  3.Figure out how to use the BBox Label tool to draw bounding boxes | Yes |
| 9/9-9/13 | 1.Use OpenCV to pre-process all images so they are monochrome  2.Use the BBox Label Tool to draw bounding boxes around the handicap parking passes in each photo in the training set. | Yes |
| 9/16-9/19 | 1.Install tkinter  2.Use the BBox Label Tool to draw bounding boxes around the handicap parking passes in each photo in the training set. | Yes |
| 9/23-9/26 | 1.Watch tutorial videos on training a program to detect a custom object in YOLO  2.Begin writing training program | No |
| 9/30-10/3 | Finish writing training program | No |

**Reflection:**

This week, I was able to successfully install the BBox Label Tool on a Syslab computer, and I used it to create my training set with bounding boxes, thus meeting my 2-3 week goal. I think I did a good job of understanding what different sections of the BBox Label tool were supposed to do and strategically searching for the source of my error in particular methods where the error was more likely to be located. One additional concern I encountered is that some of the handicap parking passes in the photos in my training set are diagonal, and the rectangular bounding boxes the BBox Label Tool draws are all vertical or horizontal. This means that the bounding boxes around diagonal handicap parking passes include some additional parts of the photo that I don't want to identify. Next week, I will look into ways to fix this or I will remove these photos from the training set.