Daily Log

Monday September 23

Fixed issues with GUI not being able to properly display images in some cases. Adjusted yolov3 neural net layers to appropriately match the number of classes and number of images to be trained on.

Wednesday September 25

Adjusted GUI commands so that it split day/night sets into images and labels, as per Darknet format. Still some issues with unintuitive order of setup for opening images through GUI that need to be fixed.

Friday September 27

Added on to the train/test sorting script to have it also create the training config file, and move all necessary files to the Darknet directory. Was unable to confirm that Darknet commands work on a small set of images, will work on trying different distributions of Linux systems to get train command working

Timeline

Date	Goal	Met
September 16	Continue annotating images(400ish), finish GUI program, work on connecting GUI to Darknet in order to run YOLO classifier	Completed for the most part, GUI program still has some minor issues that I need to resolve
September 23	Be able to successfully run Darknet on selected group of images, work on attaching Darknet commands to GUI	Was not able to get Darknet to run on a set of images due to issues with Linux emulation
September 30	Be able to run Darknet and Darknet commands through GUI, begin work on trying to reach desired accuracy of 95%	
October 7	Have GUI separation of day and night sets, adapt GUI to be more simplistic and cover more error cases	

Reflection

This week I worked on automating the process of setting up and configuring the Darknet image training system through the GUI by having it automatically create a config file in the right format based on the selected directory of images, and by separating images and their labels into different folders. I was unable to get the Darknet image trainer working on a small set of images from April because of issues with using Linux virtual machines on a Windows computer and Darknet's compatibility issues with Windows itself. I plan to resolve this by testing Darknet on several different Linux distributions and seeing if any are sufficient.