Journal Report 13
1/12/20 - 1/19/20
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Daily Log

Monday January 13

Looked more into the implementation of darknet/YOLO with OpenCV version greater than 3.4. Found that tinyYOLO requires OpenCV 3.4 or below, but making a virtual env with that version of OpenCV just led to more errors regarding anaconda and brew package location inconsistencies

Tuesday January 14

Found a Github repository that implemented a version of YOLO with OpenCV greater than 3.4. Cloned that repository and ran it, debugged a couple of minor subsequent errors. Darknet works now! I used the normal YOLO configuration and weight file, and the code is able to detect my face along with my phone and anybody who might be walking in the background.

Thursday January 16

Changed the configuration that my network was using to tinyYOLO. At first, I only downloaded the YOLO weights and that ended up causing no objects to be recognized. After updating the .cfg file along with the weights file, tiny YOLO started predicting images much faster, but with often a lower accuracy. I think this tradeoff is worth it for my final project, though. Looked a bit more into how I can train YOLO for a custom dataset.

Timeline

Date	Goal	Met
Today minus 2 weeks	Improve the graphics of the interface	Yes, implemented ttk
Today minus 1 week	Begin annotation and impelentation of the YOLO network	Yes
Today	Get a version of YOLO trained on a custom dataset up and running	Sort of, I got a version of YOLO up and running, but it hasn't yet been trained on a custon dataset
Today plus 1 weeks	Train YOLO on a custom dataset	
Today plus 2 weeks	Test the algorithm on the Perplexus chassis system	

Reflection

Through the process of trying to find compatible versions of darknet/YOLO, I was able to learn more about the network itself. This will surely help me in adding the custom training dataset to the network later. Also, after checking in with Khushi I am hopeful we can have a working prototype of the chassis - Perplexus - computer system soon!