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**Daily Logs**

**Monday, October 7:**

This week, I am trying to create a CMake environment where I can install darknet (and other YOLO dependencies) so I am able to run YOLO. So far, I have downloaded CMake and all the dependencies except darknet, but I’m having trouble actually adding them into the CMake project. Today I tried adjusting the path names of the dependencies I’m adding, but that wasn’t working. The dependencies just move into a file called “Ungrouped Entries”.

**Tuesday, October 8:**

Today, I researched the dependencies to try to get a better idea of what their purpose is in running YOLO and why I’m adding them, so I can tell if there’s an order I should be using to add the dependencies and other commands in CMake. For example, I did find out that darknet is written in C and CUDA, which makes me think I should add CUDA before darknet.

**Thursday, October 10:**

I am reading through CMake documentation and tutorials on the CMake website. I learned that CMake is useful because it allows me to add the functionality of different programs into my directory tree, without having the source tree for those programs. This makes CMake a good fit for running something like YOLO that requires a lot of separate dependencies. After creating the CMake environment, it looks like I can code in CMake in C++ and possibly with some CMake-specific commands.

**Timeline:**

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| --- | --- | --- |
| Week | Goal | Met? |
| 9/23-9/26 | 1.Research how to train a program to detect a custom object in YOLO  2.Begin writing training program | Yes |
| 9/30-10/3 | 1. Finish installing darknet  2.Create 3 YOLO configuration files | Started installing darknet; installed ⅔ configuration files |
| 10/7-10/10 | 1.Finish installing darknet and other YOLO dependencies in CMake  2.Create 3rd YOLO configuration file  3.Determine correct number of iterations to prevent overfitting | Made progress installing darknet. Now I have a better idea of what it is and why I need it |
| 10/15-10/17 | Finish installing darknet and other YOLO dependencies in CMake | No |
| 10/21-10/25 | 1.Create 3rd YOLO configuration file  2.Determine correct number of iterations to prevent overfitting | No |

**Reflection:**

This week, I worked on using CMake to install the dependencies necessary to run YOLO. I mostly did research on what the dependencies are and why I need to install them to be able to run YOLO, and knowing this is helping me to think about different ways to approach installing the dependencies in CMake, such as what order to install them in or what I need to have downloaded before I can install them. Also, I looked into the difference between YOLO and darknet, and I’m reading that YOLO is the neural net and darknet is the framework for YOLO. To me, this means that YOLO is the algorithm identifying which object an image matches most closely with, and darket has the pre-trained weights and the code for outputting the results of YOLO’s neural net.