August Project Progress Form

Project Progress: Please ensure your progress so far is consistent for each month (min. of 150 to max. of 200 words)

I have been using PyCharm to work with the TrashNet dataset. The dataset is originally split into 6 folders representing the different waste categories: cardboard, glass, metal, paper, plastic, and trash. I have tried to apply various object detection algorithms on this dataset and train them. I am currently working on implementing object detection techniques such as Fast(er) R-CNN, Region-based Fully Convolutional Network, Single Shot Detector, Spatial Pyramid Pooling, and YOLO. I am implementing several techniques as I would like to try and find the best one and maybe compare them in my final paper. I have had and am still having some package dependencies issues that are making my progress slower as I am taking the time to work through them and find solutions. Despite the fact that I have been practicing the use of PyTorch, I have found that in the application of object detection, Tensorflow/Keras might be easier tools to use and I find myself using them sometimes (for this reason, I might shift my project from PyTorch to Tensorflow/Keras). Additionally, I am thinking of using Mask R-CNN with ResNet backbone pre-trained on the COCO dataset (which is a large-scale object detection, segmentation, and captioning dataset).