

# Weekly Report

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**Abstract**—This week I mainly put my effort on practicing Pytorch and testing the new Titan V GPU.

## I. PYTORCH PRACTICE

THERE are many implementations about semantic segmentation frameworks with Pytorch. So I need to read them carefully and understand them totally, only by this way can we master Pytorch and implement my own networks as I want.

- I choose the FCN networks as my study object. Since it's the most classic networks and once I implement this, it's easier to transfer to following networks.
- The code mainly consists of 5 parts, including models, dataset, loss, metric and main. Fig. 1 is the overview of the Pytorch code. Fig. 2 is the training process of the semantic segmentation code with Tensorflow.

## II. TITAN V TEST

Since we got the new GPU, we try it on my server.

- About Pytorch, I tried a new code of StarGAN, a CVPR'18 oral paper, and I found that the training speed has been improved to be 2 times as the GTX1080. So the price is worthy.
- About Tensorflow, I tried the semantic segmentation framework with Tensorflow. But it seems that the training speed is almost the same as the before. Maybe it would be faster in the following versions of Tensorflow.

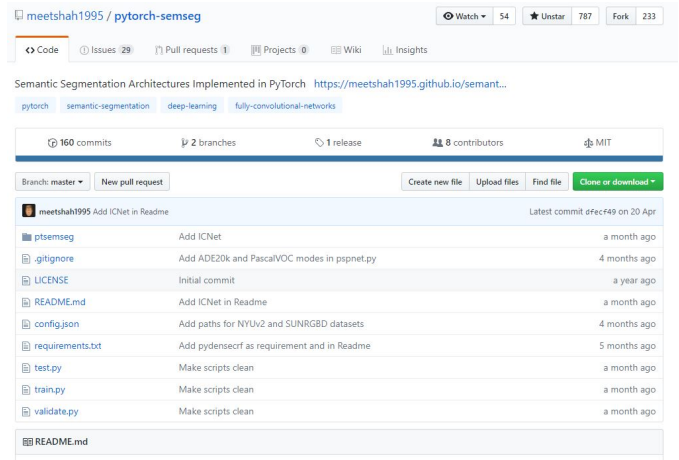


Fig. 1: Code overview

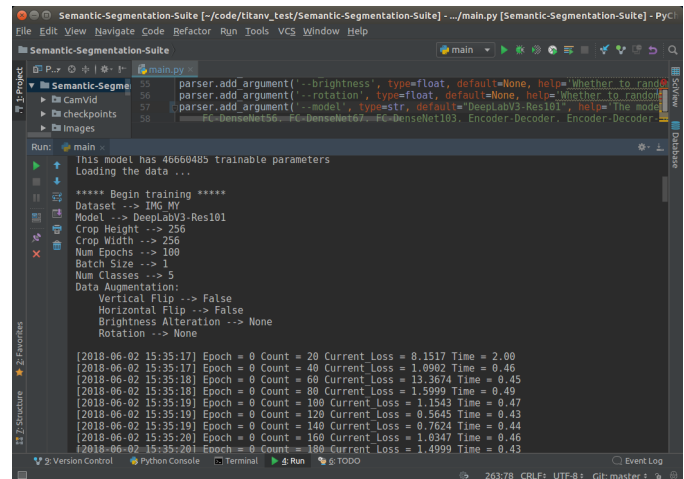


Fig. 2: Semantic segmentation code with Tensorflow