**Image Preprocessing:**

* Flip the image and adjust steering measurement accordingly
* Use camera images from left and right cameras
* Normalize the image and mean centered around 0
* Crop regions that are not of interest e.g. top portion of the image containing trees and hills and the bottom portion containing car’s hood
* TODO:
  + Apply translation and rotation of images as well as adjust brightness adjustments to make the model more generalized

**Model:**

I’ve used a model based off of NVIDIA’s architecture

Convolutional Layer: 24, 5, 5

Leaky RELU Activation: alpha = 0.001

Convolutional Layer: 36, 3, 3

Leaky RELU Activation: alpha = 0.001

Convolutional Layer: 48, 3, 3

Leaky RELU Activation: alpha = 0.001

Convolutional Layer: 64, 3, 3

Leaky RELU Activation: alpha = 0.001

Convolutional Layer: 64, 3, 3

Leaky RELU Activation: alpha = 0.001

Fully Connected Layer: 1164

Leaky RELU Activation: alpha = 0.001

Fully Connected Layer: 100

Leaky RELU Activation: alpha = 0.001

Fully Connected Layer: 50

Leaky RELU Activation: alpha = 0.001

Fully Connected Layer: 10

Leaky RELU Activation: alpha = 0.001

Output

**Optimizer:** Adam

**Loss Function:** MSE (Mean Squared Error)

**Epochs:** 3