

CURRENT WORK PROGRESS

1. Basic understanding of Neural networks (CNN and RNN) for image processing and working of the same on tensorflow
2. Varying different hyperparameters to improve training efficiency for the networks
3. Understanding various optimizations schemes and GD optimizers which will improve gradient descent. These include RMSprop, ADAMax, ADAM, Momentum, SGD, mini-batch SGD etc.

OBJECTIVES for Dec 15th

By December 15th, a clear idea for ICML 2019 (June 15, 2019) should be ready.

A general comparison for all optimization strategies using different optimizers should be ready

A testbench to test different optimizers should be ready

Two papers are desired:

1. The first one is a collaborative effort with a colleague (Shrisha Baliga) in exploring various optimization strategies for Recurrent Neural Networks using Auto Correlation constraints as a parameter
2. The second paper is going to be personal work, exploring the various optimization strategies for neural networks using only the optimizers and a strategy that may be better than current methods in gradient descent. (This is still conjecture. This paper depends on how well my optimizer is able to perform in comparison to other optimizers)