#### 15-400 Milestone 3

Prithvi Gudapati (pgudapat) February 2019

#### 1 Major Changes

There are no major changes.

## 2 What You Have Accomplished Since Your Last Meeting

I have looked into language modeling and have read a few papers in the area to determine that we will be able to run meaningful experiments for the characterization with language modeling. I plan on using perplexity as the performance metric as it seems to be the standard in the field. We are looking at Char-RNN right now and trying to see if we can use the Caffe implementation of it to output perplexity on a test data set instead of generating a new text.

### 3 Meeting Your Milestone

I am pretty much on track with regards to the milestones.

## 4 Surprises

There have not been any major surprises.

## 5 Looking Ahead

The main focus going forward is getting the Caffe implementation working on standard Caffe and then using it with Geeps, Gaia, and FedAvg. In addition, I will be looking at the theoretical analysis as well. To begin with I will reread the D2 paper and look at the theoretical analysis in it.

#### 6 Revisions to Your Future Milestones

There are no revision to future milestones.

# 7 Resources Needed

I have all the resources that I need to complete my project.