

# 15-400 Milestone 4

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## 1 Major Changes

There are no major changes.

## 2 What You Have Accomplished Since Your Last Meeting

I have implemented perplexity in C++ and have run some basic tests using a fake test data set.

I am also looking into what good numbers for perplexity are just for a quick sanity check.

## 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

Now that I have working implementation of perplexity, which allows me to compare performance of different models I will try to train the model using Geeps, Gaia, FedAvg, and Deep Gradient Compression (this one is new). I also need to look at how to generate non-iid partitions for the Shakespeare data set that I am working with.

## 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.