Journal Report 10 11/17/19-11/23/19 Ben Schuman Computer Systems Research Lab Period 4, White

Daily Log

Monday, November 18

Continued testing of Keras Sequential model, compared to vanilla tensorflow model, experimented with different ways of setting up the network, either adding layers to the model one by one or intializing the full network at once.

Tuesday November 19

Ran tests on each model, Sequential model seems to be working the best in terms of ease of setup and efficiency. Results print pretty clearly from the keras/tensorflow API.

Thursday October 21

Finished up testing, determined that the Sequential model will work best for my project. Started research on specific numbers of nodes for each hidden layer, as well as number of layers.

Timeline

Date	Goal	Met
November 3-9	Determine based on previous results	Yes, partially, don't know if NN
	if NN needs to be restructured. If so,	needs to be restructured for certain,
	do it, if not, start to build accuracy of	but based on current results every-
	NN.	thing looks fine.
November 10-	Continue training NN on laptop, ver-	Yes, playing around with different
16	ify that NN is working properly	models now to see which works best
		for my project
November 17-	After experimenting with different	Yes, decided on sequential model
23	models, decide which one is best for	
	project	
November 24-	Polish up network, begin training	
30	over the entire data set to get prelimi-	
	nary results.	
December 1-7	Continue training of network for pre-	
	liminary results.	
Winter Goal	Application takes geographical area	
	and type of disaster as inputs and	
	is able to predict with 70-75 percent	
	accuracy (based on Neural Network)	
	the magnitude of people displaced.	

Reflection

This week I was able to successfully complete testing in order to determine which model would fit best for my project. I ended up going with the Keras. Sequential model due to ease of setup and efficiency as well as clearness of results on the front end. In the following weeks I will be able to begin testing with the Sequential model over the entire data set to get preliminary results and work from there.