Journal Report 14 1/13/2020 – 1/19/2020 Valerie Nayak Computer Systems Research Lab Period 2, White

Daily Log

Monday December 9

Today, I was working on training the transformer model, but I got a tuple index out of bounds error while running. I was researching the problem and looked at some related GitHub issues, but haven't found the fix yet. Next class, I'm going to continue trying to solve this.

Tuesday December 10

Today was mostly spent trying to find/fix the issues I was getting while running with PyTorch transformers. I looked into more examples that I was comparing and continued reading through the issues on GitHub to find a solution. No luck so far, so this will probably continue into next class.

Thursday December 12

I worked more on trying to find the issue with the transformers. I then started looking at other PyTorch-based libraries/examples that I can modify for this, in case I have to try a different approach.

Eventually I found a model by Facebook AI called DrQA that I can build off of. I began to train the DrQA model, and the training is working. I haven't had time to run the training to completion, but I tested out the first two epochs so I can tell it's working.

Timeline

Date	Goal	Met
Winter Break	Implement a basic question answer-	Yes
Goal	ing model based on BERT. Planning	
	on basing it off of previously imple-	
	mented models and guides.	
Sunday, Jan 19	Train and evaluate a PyTorch ques-	I didn't quite finish training and I've
	tion/answering model using the	begun to think I might use a differ-
	open source huggingface transform-	ent open source PyTorch library be-
	ers library.	cause the transformers haven't been
		working as well as I'd hoped, but I've
		begun training a model and plan on
		evaluating it in the next week.
Sunday, Jan 26	Finish training and start tweaking the	
	model that was begun in the previous	
	week to increase accuracy by 2%.	
Sunday, Feb 2	Evaluate my model in its current state	
	and make changes as necessary. (I'm	
	planning on making this goal more	
	specific next week, once I figure out	
	where I'm at with my current model.)	

Reflection

This week was mostly spent trying to figure out why my transformer model wasn't running properly, but after a few days of research I decided to try a different tactic. I now have something that I know is beginning to train, so I'll start with that next week and hopefully make some progress with that model in the coming class periods.