Journal Report 8 10/28/2019 – 11/3/2019 Valerie Nayak Computer Systems Research Lab Period 2, White

Daily Log

Monday October 28

Today, I put together my intro presentation for Thursday. I made my first three slides for my project – title, motivation, and proposal.

Tuesday October 29

I continued to work on my translation RNN model. We also watched some other presentations in class, so I worked on creating my script for my presentation and made some edits to my slides.

Thursday October 31 (Happy Halloween!)

Today, I continued to work on my RNN model. I began to research Google BERT, which is a more recent language processing model that I'm considering using. Most of today's class was spent on presentations for our project intros. I presented my project intro in class.

Wednesday, November 6 (Anchor)

I did more research into BERT (Bidirectional Encoder Representations from Transformers), which was a paper published by Google AI Language in 2018. I read about the model on this Towards Data Science page: https://towardsdatascience.com/bert-explained-state-of-the-art-language-model-for-nlp-f8b21a9b6270.

BERT works well because it applies bidirectional training of a Transformer (an attention model) to language modeling. It uses bidirectional training instead of reading text left-to-right or right-to-left. This method of training allowed the model to have a greater understanding of language context. BERT has previously been pretty successful in question answering tasks, so I'm planning on doing more research on how to use it.

Thursday, November 7

Today, I found a standard implementation of BERT for sentence classification on GitHub and was able to get it to run on Colab. One sample classifier was trained to recognize insults, so it could classify a sentence as either "insult" or "not insult". I also began to watch the next lecture video, which began to discuss developments in question answering tasks.

Timeline

Date	Goal	Met
Sunday Oct 27	Training the RNN model for translation and work on week 5 lecture videos. Start reading literature for my question answering project.	I've made progress on the RNN model, but I'm not quite close to being done with it yet. Now that I've configured my conda environment and found a GPU machine, I should be able to make progress on it next week. I think the goal I set for this week will take more time that I'd
		originally planned for it.
Sunday Nov	Finish training the RNN translation	Worked on my RNN model and be-
10	model. Start week 5 lecture videos	gan to read about BERT and other lit-
	and begin reading literature on my	erature relating to my final project.
	question answering project	
Sunday Nov	Work on finding more sample mod-	
17	els using BERT and figure out how to	
	implement them.	
Sunday Nov	Begin to implement a model for ques-	
24	tion answering.	

Reflection

In this past week and a half, the main progress I made was discovering the BERT model. I plan on exploring previous implementations using BERT and seeing if I can adapt this for my project.

Also, my show is this week, Thursday through Sunday. Our show is The *Curious Incident of the Dog in the Night-time*. If you have time, I'd love if you could come see it! :)