

Daily Log

Monday December 9

I went back to researching RNNs so I'll be able to implement the translation model (an exercise that I'm planning to do so I can have the experience of implementing a model from start to finish using the PyTorch libraries because it'll help me with my actual project.)

While I was doing my reading today, I found this great website that explains RNNs and attention and has interactive diagrams: <https://distill.pub/2016/augmented-rnns/>. I explored the content at this link today and also looked through the chapter in this book as well as the associated diagrams: <http://www.deeplearningbook.org/contents/rnn.html>

<https://towardsdatascience.com/deep-learning-4-embedding-layers-f9a02d55ac12>

Tuesday December 10

Today, I continued to read the RNN notes from my online class. I think I'm getting a better understanding of the encoder/decoder architecture. I went back to my code for it, and I did the sentence paddings and wrote the model embeddings. I worked on the model encoder and hidden layers, but when I ran it the dimensions weren't right so I'm going to try to fix that next class.

Thursday December 12

I worked on my translation model encoder today. I'm still having some dimension issues, so I've been reading the PyTorch documentation for the functions I'm using to make sure I'm using them correctly. I've also been reading through some of the code from translation models that other people have implemented to try to figure out what isn't working with mine. Over the weekend, I'm planning on finishing up watching the lecture video that I wanted to rewatch to make sure my concepts are clear. I finished reading the course notes for RNNs that I started earlier this week.

Timeline

Date	Goal	Met
Sunday, Dec 8	Finish my GitHub documentation for my code up to this point. Have a basic BERT model on GitHub with clear instructions on how to use it.	Yes
Sunday, Dec 15	Rewatch the lecture videos from my online class from the week that covered RNN language models and implement the translation model using the PyTorch libraries.	Have made progress on both of these, but still need to do some additional work on them.
Friday, Dec 20	Finish up my goals from last week that I didn't quite complete yet, and make sure my winter goal and documentation on GitHub for it is all ready to go.	
Winter Break Goal	Implement a basic question answering model based on BERT. Planning on basing it off of previously implemented models and guides.	

Reflection

Overall, this has been a pretty good week for me in terms of understanding my project material more thoroughly. I gained a better understanding of bidirectional RNNs and why we use them, and I also feel like the concept of attention in neural networks makes more sense to me now. I'm still having some issues with the code I was working on last week, so I'm going to try to look at some online examples and figure out why that's not working.

My other task for this week is to make sure everything is in order for my winter goal. Everything I need for it is pretty much in place, so I'll just need to get it organized and explain it well before we go on break.