Journal Report 15 1/20/20-2/9/20 Emily Ye Computer Systems Research Lab Period 2, White

# **Daily Log**

# **Tuesday January 21**

Finished debugging code for training parameter sharing models / clustering to work with previously-coded GCNs

Began debugging combined multitask GCN code

## **Thursday January 23**

Read Ruder article on multitask learning in neural networks, specifically the section about the differences between methods for multitask learning (hard parameter sharing model vs. soft parameter sharing model)

Continued debugging combined multitask GCN code

#### Wednesday January 29

Began working on second quarter presentation

## **Thursday January 30**

Continued debugging combined multitask GCN code
Finished working on second quarter presentation and began working on presentation script

#### **Monday February 3**

Finished working on presentation script

## Tuesday February 4 and Thursday February 6

Gave second quarter presentation and listened to classmates' presentations

# Timeline

January 26	Finish combining multitask and GCN	Almost done, a little more debugging
	networks	to do
February 2	Finish combining multitask and GCN	Worked on presentation instead
	networks, test and tweak multitask	
	GCN to improve accuracy	
February 9	Finish combining multitask and GCN	Listened to presentations throughout
	networks, test and tweak multitask	the week
	GCN to improve accuracy	
February 16	Finish combining multitask and GCN	
	networks, test and tweak multitask	
	GCN to improve accuracy	
February 23	Test different convolutions to im-	
	prove accuracy	

# Reflection

My main goal for the week of January 20 - January 26 was to finish combining the code for the multitask and GCN networks so that I could have a functioning multitask GCN by the end of the week. I also took a break from coding in the middle of the week to review the differences between hard parameter and soft parameter sharing models to better understand how the differences in code between them. Unfortunately, the multitask GCN network does not completely function yet, and I spent most of the past two weeks either working on my second quarter presentation or listening to presentations. However, I am working on debugging and am optimistic that it will work by the end of this week. From there, I hope to tweak some of the layers in order to improve its accuracy and get an idea of how effective the network is right now. I will also look into using some of the different convolutions I implemented earlier in the year to continue improving accuracy in upcoming weeks.