Journal Report 14 1/06/20-1/10/20 Sarah Luthra Computer Systems Research Lab Period 2, White

Daily Log

Monday December 9

I started to research the ways I could improve the accuracy of my model. I first just played around with the network architecture just to see what would happen depending on the changes I made. I added three more layers, and changed the number of nodes each layer had, and the prediction only marginally changed. I decided I needed to understand the data better to figure out the best network architecture.

Tuesday December 10

I went back to the website that I had originally taken my data from (the World Bank database). I looked through more of the data sets they had, but I realized I had already used most of the pertinent information to my project. The only data point I hadn't used was "Statistical Capacity score" which I decided wouldn't really fit into my project. This made me think I would just need more data points to improve the accuracy of my data. I spent the rest of the time looking up monthly data.

Thursday December 12

I spent Thursday's research block looking up ways to incorporate the results of the regressions I ran in the beginning of the year into my current model. From those regressions, I realized some data points may be more important than others (based on their R and p values). I decided to invest more time in understanding which factors would be more important than others and by what factor, so I could assign weights to the factors in the model.

Timeline

Date	Goal	Met
Jan 6	Research possible options to improve	Yes, more research is still needed
	the accuracy of the model.	though.
Jan 13	Figure out some possible options on	
	how to include the stats into the	
	model to make it more accurate.	
Jan 20	Try to get monthly data for the factors	
	I already have, so I can increase the	
	number of data points in the model.	

Reflection

Now that a preliminary version of my code works, I'd say I'm back into a research phase. I want to figure out how to make my model a lot better before I work on the simulation part, so I'm going to continue to research this next week and experiment with different ideas to try to improve the accuracy. After this week, I should have a direction as to which idea I'm pursuing, and by the end of 2 weeks from now I will have some results that I will compare with what I have currently to see if the changes I made worked or not.