1) What problem did you select and why did you select it?

I elected to investigate the relationship between movement and disease spread in bighorn sheep. Pneumonia outbreaks are one of the most significant challenges facing bighorn sheep restoration and conservation in the Northwestern United States. I picked this problem because I used to work in a lab researching bighorn sheep, and I have great affinity towards them.

2) What database/dataset will you use? Does it need to be cleaned?

I will use datasets related to herd locations in Hells Canyon, ID, pneumonia outbreak history among these herds, herd population data, demographic information and location data for individual study sheep, and information about translocation events in this area – all of which will need cleaning.

3) What software will you use to implement the network? Why?

I will use Python and all of the packages we've covered in lecture because the requirements dictate it, and I will use ArcGIS Pro for managing projections of spatial data files because my computer does not correctly install the necessary Python libraries for spatial data management.

4) What reference materials will you use to obtain sufficient background on applying the chosen network to the specific problem that you selected?

I will be relying on my ~2 years of experience doing research related to this field and the plethora of literary publications I read during that time.

5) How will you judge the performance of your results? What metrics will you use?

I will be using accuracy, ROC, and confusion matrix scores as we have learned to apply them in lecture. Decisions will be made on models with the highest of these scores.

6) Provide a rough schedule for completing the project.

ASAP…