**\*\*\* My reviews are in red, left the form Dr. Moon gave in black. \*\*\***

Presentation Peer Reviews

Each review is worth 5 points. Groups are ordered by time.

Reviewer Name: Jared Hansen

**Presenters**: Christiaan Loaiza, Johnny Medri, Chathumadavi Edriweera

Please rate the following aspects of the presentation as “excellent”, “good”, or “needs work”. Add comments below to explain your ratings.

1. Content (e.g. interest, appropriateness for the audience and assignment, clear focus, methods used are clearly described):

**EXCELLENT**

Gave background on the features used (different representations of the two protein sequences), which data were of high enough quality to use, good explanation of metrics used to compare models (sensitivity, specificity, PCC), covered a fair bit of the technical side of the project (discussion of performance).

1. Organization (e.g. easy to follow, clear introduction and conclusion, transitions, coherent):

**EXCELLENT**

Gave good background on the biology of hosts and pathogens as well as the computational representation of proteins, explain why using DL can be more efficient than other methods to characterize these interactions, gave overview of data and methods used for cleaning, moved onto SVM and DL to finish.

1. Delivery and Overall Communication (e.g. eye contact, appropriate volume and rate of speech, clarity of speech, comprehensibility, body language, use of media and visual aids, all members well-prepared)

**GOOD**

Did a good job of involving all members, all members had good knowledge of their parts of the presentation, presentation skills (eye contact, volume, use of media/visuals, etc.) were all good, a few biology-specific terms were hard to understand (pronunciation) but having names on the screen helped.

Answer the following questions:

1. What is one thing that you learned from this presentation?

Saw an application of a CNN for something other than images/computer vision.

1. What is one thing the group did well?

Giving background of the different methods used for characterizing protein sequence similarity (Geary, conjoint triad, dipep, quasi-order, etc.)

1. What is one suggestion to help them improve future presentations?

Maybe not quite as much time spent on the biology (due to the time constraints in this situation).

1. Additional comments?

n/a

**Presenters**: Jake Rhodes, Thomas Brower, Donald Beckendorf

Please rate the following aspects of the presentation as “excellent”, “good”, or “needs work”. Add comments below to explain your ratings.

1. Content (e.g. interest, appropriateness for the audience and assignment, clear focus, methods used are clearly described):

**EXCELLENT**

I especially like Jake’s explanation of the grid search, as well as how they handled imbalanced data, gave sufficient background of the domain of the project (taxa absence/presence classification). Donny did a good job giving the background (assuming he was the SME on this).

1. Organization (e.g. easy to follow, clear introduction and conclusion, transitions, coherent):

**EXCELLENT**

Moved through things in a logical progression.

1. Delivery and Overall Communication (e.g. eye contact, appropriate volume and rate of speech, clarity of speech, comprehensibility, body language, use of media and visual aids, all members well-prepared):

**GOOD**

All three presenters did a good job of these things, especially Jake and Donny. A couple times it felt like Thomas was reading the slides but didn’t know the background behind them as well.

Answer the following questions:

1. What is one thing that you learned from this presentation?

A single hidden layer feed-forward network outperformed RF fairly definitively.

1. What is one thing the group did well?

Explanation of the technical aspects of the project were especially good.

1. What is one suggestion to help them improve future presentations?

Thomas skipping the title of the project probably wasn’t a good thing (need to know what the topic of the project is).

1. Additional comments?

Great job.

**Presenters**: Sharad Jones

Please rate the following aspects of the presentation as “excellent”, “good”, or “needs work”. Add comments below to explain your ratings.

1. Content (e.g. interest, appropriateness for the audience and assignment, clear focus, methods used are clearly described):

**EXCELLENT**

Covered things in the perfect amount of depth and in the right order.

1. Organization (e.g. easy to follow, clear introduction and conclusion, transitions, coherent):

**EXCELLENT**

Great, there was a clear logical flow in the presentation.

1. Delivery and Overall Communication (e.g. eye contact, appropriate volume and rate of speech, clarity of speech, comprehensibility, body language, use of media and visual aids, all members well-prepared):

**EXCELLENT**

Sharad is a great presenter and does a great job of articulating what he’s worked on.

Answer the following questions:

1. What is one thing that you learned from this presentation?

The number of ways to combine various concepts in ML is vast. Sharad’s idea combines them in a super cool, interesting way that leverages previously-developed models and automates the ensemble modeling process (e.g. include the model or don’t include the model).

1. What is one thing the group did well?

Introduction of the topic was perfect: thorough and at a level that those in the class can comprehend.

1. What is one suggestion to help them improve future presentations?

N/A, everything was awesome.

1. Additional comments?

Awesome presentation (and super interesting work)!

**Presenters**: Brennan Bean, Jesse Wheeler

Please rate the following aspects of the presentation as “excellent”, “good”, or “needs work”. Add comments below to explain your ratings.

1. Content (e.g. interest, appropriateness for the audience and assignment, clear focus, methods used are clearly described):

**EXCELLENT**

Did a good job of including discussion of materials we covered in class.

1. Organization (e.g. easy to follow, clear introduction and conclusion, transitions, coherent):

**EXCELLENT**

Moved through the material in a coherent manner.

1. Delivery and Overall Communication (e.g. eye contact, appropriate volume and rate of speech, clarity of speech, comprehensibility, body language, use of media and visual aids, all members well-prepared):

**EXCELLENT**

Had to move quickly but were still understandable and did a good job of articulating the material. Graphics used were great.

Answer the following questions:

1. What is one thing that you learned from this presentation?

Radar imaging is a complex topic! Didn’t realize how involved a process it is.

1. What is one thing the group did well?

The level of technical detail discussed was impressive.

1. What is one suggestion to help them improve future presentations?

Try and cut down on the amount of material to move through at a less-rushed pace (I don’t know if this is even possible since the problem is fairly complex to introduce and the methods used are too).

1. Additional comments?

Great presentation!

**Presenters**: Ronak Tali, Andres Duque

Please rate the following aspects of the presentation as “excellent”, “good”, or “needs work”. Add comments below to explain your ratings.

1. Content (e.g. interest, appropriateness for the audience and assignment, clear focus, methods used are clearly described):

**EXCELLENT**

Did a good job of balancing the finance content with technical content we’ve discussed during the semester.

1. Organization (e.g. easy to follow, clear introduction and conclusion, transitions, coherent):

**EXCELLENT**

Gave a good introduction to options and explaining their dynamics pertinent to the DL application.

1. Delivery and Overall Communication (e.g. eye contact, appropriate volume and rate of speech, clarity of speech, comprehensibility, body language, use of media and visual aids, all members well-prepared):

**GOOD/EXCELLENT**

Great for the most part, but some slides were heavy on text.

Answer the following questions:

1. What is one thing that you learned from this presentation?

I hadn’t understood before that the objective was to correctly price the options from the perspective as a market-maker. Made more sense why strong assumptions for the deterministic Black-Scholes model don’t make sense during times of market flux.

Also, learning that the objective is for the market-maker to determine how much of the underlying asset they need to hold in reserve is sooooo cool! I actually get this problem now.

1. What is one thing the group did well?

Interleaving the finance content with the associated DL concepts was well-done.

1. What is one suggestion to help them improve future presentations?

Maybe didn’t need to cover the Black-Scholes model for this presentation/audience (other than to just mention it and that it’s the industry standard).

1. Additional comments?

Great presentation, I really enjoyed understanding this problem. Complex stuff, super cool application!

**Presenters**: Hossein Nasr-Isfahani

Please rate the following aspects of the presentation as “excellent”, “good”, or “needs work”. Add comments below to explain your ratings.

1. Content (e.g. interest, appropriateness for the audience and assignment, clear focus, methods used are clearly described):

**EXCELLENT**

Explanation of the problem and the methods used (including technical details) was good.

1. Organization (e.g. easy to follow, clear introduction and conclusion, transitions, coherent):

**EXCELLENT**

Moved through the problem in a coherent progression.

1. Delivery and Overall Communication (e.g. eye contact, appropriate volume and rate of speech, clarity of speech, comprehensibility, body language, use of media and visual aids, all members well-prepared):

**GOOD**

Felt a bit uncomfortable at times (faced the screen a lot), monotone speech. But good other than that.

Answer the following questions:

1. What is one thing that you learned from this presentation?

Hadn’t really thought of neural net applications to spatial data modeling. Cool idea.

1. What is one thing the group did well?

Explanation of the problem was done at a good level.

1. What is one suggestion to help them improve future presentations?

Get more comfortable presenting, use more expressive speech.

1. Additional comments?

Good presentation overall.

**Presenters**: Wasim Khan, Andrew Aposhian, Agnibh Dasgupta

Please rate the following aspects of the presentation as “excellent”, “good”, or “needs work”. Add comments below to explain your ratings.

1. Content (e.g. interest, appropriateness for the audience and assignment, clear focus, methods used are clearly described):

**EXCELLENT**

The discussion of network architecture was great (details, diagrams, etc.) especially for a class focused on deep learning.

1. Organization (e.g. easy to follow, clear introduction and conclusion, transitions, coherent):

**EXCELLENT**

The presentation set up the problem well and then explained how they answered it in a sequential, logical fashion.

1. Delivery and Overall Communication (e.g. eye contact, appropriate volume and rate of speech, clarity of speech, comprehensibility, body language, use of media and visual aids, all members well-prepared):

**EXCELLENT**

All three did a good job of this. Use of graphics to explain architecture was crucial.

Answer the following questions:

1. What is one thing that you learned from this presentation?

Neural networks can be used to ask reading comprehension questions, super cool. (Specific questions, less on subjective evaluation, more like “what color was the dog” type questions.)

1. What is one thing the group did well?

Level of technical detail explaining the networks was really impressive.

1. What is one suggestion to help them improve future presentations?

Try and connect the high level of technical detail to intuition behind why this architecture is used (which piece does what, maybe relate it to how the network is learning to answer the questions).

1. Additional comments?

Impressed that networks this complex were come up with and used.

**Presenters**: Jill Lundell, Austin Dodd, Devin Eddington

Please rate the following aspects of the presentation as “excellent”, “good”, or “needs work”. Add comments below to explain your ratings.

1. Content (e.g. interest, appropriateness for the audience and assignment, clear focus, methods used are clearly described):

**EXCELLENT**

Gave an appropriate amount of background info, covered the technical details at a level appropriate for the audience.

1. Organization (e.g. easy to follow, clear introduction and conclusion, transitions, coherent):

**EXCELLENT**

Moved through in a logical manner, good introduction to the problem, articulation of their problem-solving process.

1. Delivery and Overall Communication (e.g. eye contact, appropriate volume and rate of speech, clarity of speech, comprehensibility, body language, use of media and visual aids, all members well-prepared):

**EXCELLENT**

Particularly liked their plots showing MSE and MAE vs number of epochs (very intelligible), as well as graphics showing the maps (groundwater, fires, etc.) Felt like Devin was a bit louder than necessary at times, but better a bit louder than a bit too soft.

Answer the following questions:

1. What is one thing that you learned from this presentation?

Rather than using traditional spatial modeling techniques, using (convolutional) neural networks are a possible alternative. I was surprised that mapping images to images didn’t work, but their explanation as to why made sense.

1. What is one thing the group did well?

Really liked them stepping through the problem-solving process; what they tried, why it did/didn’t work, what the next step was.

1. What is one suggestion to help them improve future presentations?

None, did a great job!

1. Additional comments?

Interesting presentation and application of neural networks to a problem that has a lot of possible approaches.

**Presenters**: Matt Isaac, Kegan Penovich, Jared Hansen

Please rate the following aspects of the presentation as “excellent”, “good”, or “needs work”. Add comments below to explain your ratings.

1. Content (e.g. interest, appropriateness for the audience and assignment, clear focus, methods used are clearly described):

**EXCELLENT**

Tried to cover the problem background in minimal depth necessary and have the focus be on material the whole class could relate to.

1. Organization (e.g. easy to follow, clear introduction and conclusion, transitions, coherent):

**EXCELLENT/GOOD**

Tried to move logically through the problem/motivation, data, and our problem-solving and modeling process. Could have done a better job of passing around the clicker.

1. Delivery and Overall Communication (e.g. eye contact, appropriate volume and rate of speech, clarity of speech, comprehensibility, body language, use of media and visual aids, all members well-prepared):

**EXCELLENT/GOOD**

We made sure to use lots of graphics and keep slides clean and simple (thought this was a strong point). Could have done a bit better on brevity at some points, explained in more words than was necessary.

Answer the following questions:

1. What is one thing that you learned from this presentation?

Getting more complex architectures than feedforward or CNNs to work is very difficult. It’s also tough to find resources once you get to more complex/specific problems.

1. What is one thing the group did well?

Teamwork: we did a good job of splitting things up and executing.

1. What is one suggestion to help them improve future presentations?

In some cases be more brief: no need to explain things in more words than necessary.

1. Additional comments?

Maybe the best group presentation of all time? For sure in the 95th percentile or higher.

**Presenters**: Meng Xu, Anny Chen, Qi Luo

Please rate the following aspects of the presentation as “excellent”, “good”, or “needs work”. Add comments below to explain your ratings.

1. Content (e.g. interest, appropriateness for the audience and assignment, clear focus, methods used are clearly described):

EXCELLENT

Good level of detail for the class, data pre-processing was explained well, explaining the problems they ran into and how they addressed them was valuable info.

1. Organization (e.g. easy to follow, clear introduction and conclusion, transitions, coherent):

EXCELLENT

Moved through in a very coherent fashion, covering things in a ‘correct’ amount of depth in order to cover as much as possible.

1. Delivery and Overall Communication (e.g. eye contact, appropriate volume and rate of speech, clarity of speech, comprehensibility, body language, use of media and visual aids, all members well-prepared):

EXCELLENT

Did a good job of this. Especially liked the plots they made to show overfitting, learning VS not learning, use of augmented data on accuracies, etc.

Answer the following questions:

1. What is one thing that you learned from this presentation?

When classifying images using CNNs, PCA can be used as a data-preprocessing technique (and/or for additional predictive data).

1. What is one thing the group did well?

Visualizing the results that different steps gave (i.e. data augmentation)

1. What is one suggestion to help them improve future presentations?

None, good job

1. Additional comments?

Cool problem: fairly easy to understand, but tough to get great results.

**Presenters**: Jiyao Li

Please rate the following aspects of the presentation as “excellent”, “good”, or “needs work”. Add comments below to explain your ratings.

1. Content (e.g. interest, appropriateness for the audience and assignment, clear focus, methods used are clearly described):

**EXCELLENT**

Covered the data and project background at a reasonable level, spent a good amount of time on the technical details of the project.

1. Organization (e.g. easy to follow, clear introduction and conclusion, transitions, coherent):

**EXCELLENT**

The presentation moved through in a sensical progression.

1. Delivery and Overall Communication (e.g. eye contact, appropriate volume and rate of speech, clarity of speech, comprehensibility, body language, use of media and visual aids, all members well-prepared):

**GOOD**

Could have used more graphics; slides of only text can make for a more dry presentation, doesn’t hold attention as well. Did a good job of presenting though.

Answer the following questions:

1. What is one thing that you learned from this presentation?

Learned about the architecture employed when using networks for regression-like prediction, was surprised to see it outperform forests that well.

1. What is one thing the group did well?

Explaining the data (cleaning, features, etc.) and the process used for training, validation, and test was thorough.

1. What is one suggestion to help them improve future presentations?

Use more graphics where possible, maybe not quite as much presentation time spent on EDA.

1. Additional comments?

Good presentation!

**Presenters**: Naveen Duhan, Manu Vyas

Please rate the following aspects of the presentation as “excellent”, “good”, or “needs work”. Add comments below to explain your ratings.

1. Content (e.g. interest, appropriateness for the audience and assignment, clear focus, methods used are clearly described):

**GOOD**

Probably a bit too much depth on the biology for this audience. Certainly those who are more familiar with the protein classification problem will have benefited, but it was more than was necessary for everyone else. But good coverage of the ubiquitous technical details the whole class can understand.

1. Organization (e.g. easy to follow, clear introduction and conclusion, transitions, coherent):

**EXCELLENT/GOOD**

The explanation of the data/problem was thorough but connecting it to the overall project was hard to do (from the outside looking in). Coverage of modeling was great.

1. Delivery and Overall Communication (e.g. eye contact, appropriate volume and rate of speech, clarity of speech, comprehensibility, body language, use of media and visual aids, all members well-prepared):

**GOOD**

Trying to use more graphics may have been good. Good delivery overall.

Answer the following questions:

1. What is one thing that you learned from this presentation?

Dealing with these data is painful: lots of data, pre-processing, etc.

1. What is one thing the group did well?

Coverage of the modeling process was good, visuals of the network architectures were helpful.

1. What is one suggestion to help them improve future presentations?

Reduce the explanation of the biology to something very simple. At least for this audience, the goal was to focus on the modeling/networks, not giving an in-depth explanation of the biology. (Obviously there is a minimum amount of coverage that needs to be given to the set-up, just felt that it was a bit much.)

1. Additional comments?

Challenging problem, interesting approach and work.