ECE 324 Project Presentation Information and Rubric

The project presentations will be delivered in the five lectures and tutorial from Tuesday November 26th to Tuesday December 3rd. As with the proposals, you will not know if you are presenting until you are called to present, so everyone must be ready to present on Tuesday November 26th. If you have a hard restriction that prevents you from presenting on any one of the days, you must request it by Friday November 22nd.

Timed Length of Presentation

Each presentation will be **6 minutes** in length, and there will be a timer. When the timer expires, you'll be asked to finish your sentence and then finish the presentation. Be sure to practice the presentation for smoothness and length. Each partner should present for roughly half of the time.

Video Recording

The class videographer will be present to record each of the presentations. Your group will have the right to say what is done with that recording - see http://www.eecg.utoronto.ca/~jayar/mie324/ for last year's course website. There will be an opportunity to have your video on a similar public website, but only if both members of the group agree.

However, if either group member does not wish any recording to take place, please inform the instructor and it will not be done.

How to submit

Submit your presentation slides (either powerpoint or PDF) **as a group (to your group name)** on Quercus by Monday November 25th at 9:00pm. There is a grace period of one hour, late submissions will lose 20% of the grade until 9:00am on Tuesday November 26th, after which a grade of zero will be assigned.

Presentation Date and Demos

The presentations will take place in the five lectures/tutorial beginning Tuesday November 26th. As before, you will not know which day you will be presenting, so everyone must be ready to present on the first day. I would also encourage you to attend all of the presentations, to support your classmates and learn from their work.

If you wish to include live demonstrations of your software, please discuss it with the instructor. It will be necessary to bring a working computer to the presentation, and ensure that it can connect its display into a VGA connection, which is present in all rooms.

Content & Structure

The presentation structure is flexible, as long as you sufficiently cover the necessary content in a way that the audience (your classmates) can understand. You are welcome to be as creative as you want within these constraints.

You should present your project with the assumption that the audience has **no prior** knowledge of the project - the presentation should stand on its on. (Even though you know that we have seen your project proposal).

The content that you should cover is as follows:

- **Introduction & Motivation**: What is the problem that you are trying to solve? Why is it important?

- **Data and Data Processing**: What data did you use or collect? What does it look like? Is the amount/type of data sufficient for your project? What data processing did you do and why? Was their any unusual issues with the data? . . . with the train/test/validation split?
- **Model**: What model(s) did you build? What kind of models (CNN, RNN, GAN, etc) are they?

- **Quantitative and Qualitative Results**: How are you measuring and comparing performance? How well did your model perform? What are some sample predictions generated by your model? Did you "cherry-pick" the best results or are you showing a representative sample? Discuss and interpret your results.
- **Discussion and Learnings**: Do your results make sense intuitively, or were the results suprising in some way? What would you do differently in a similar project, based on your experience in this project?

The content don't have to be covered in that precise order. For example, many presentations start with a qualitative result to better explain the problem and piques the audience's interest.

A good presentation keeps the audience in mind. The audience of your presentation is your classmates, a TA, and myself. Your presentation should therefore be aimed at people who understand the basics of machine learning, as taught in this course, but who are not be an literate in the terms of your project domain.

Rubric

The presentation is graded out of 25 points:

Introduction and Motivation (out of 4)

- **Excellent** (4/4):
  - Within the first few minutes of the presentation, the audience can clearly understand why the problem is interesting or important.
  - The audience has a clear picture of the kind and amount of data you're working with, and any potential limitations of your data.
  - A TA or student in the audience should be able to come up with rudimentary ideas of how to solve your problem based on the information presented in the first couple minutes.
  - The audience is aware of any nuances that makes the problem easier or harder than what someone might expect.
- **Good** (3/4):
  - Within the first few minutes of the presentation, the audience has a clear picture of what problem you are trying to solve.
  - The audience has a good picture of the kind and amount of data you're working with.
  - The audience's understanding of *what* problem you are trying to solve changes somewhat over the course of the presentation.
- **Fair** (2/4):
  - The audience has some idea of what problem you are trying to solve.
  - The audience has some idea of the amount of data you're working with, but might have questions that would contextualize (help interpret) the rest of your presentation.
  - The audience's understanding of what problem you are trying to solve changes over the course of the presentation.
- **Poor** (1/4):
  - The audience is confused about exactly *what* problem you are trying to solve.
  - The audience needs more information about the data you have available in order to understand contextualize the rest of your presentation.
  - The audience's understanding of what problem you are trying to solve changes over the course of the presentation.

Data and Processing (out of 4)

- **Excellent** (4/4):
  - The audience has a clear understanding of the source of your data and i can picture how you processed your data, and the effect of the processing on the amount, type, and quality of your data.
  - The audience has a clear idea of how your data will be used as input to your model.
  - The audience understands why you decided to process your data a certain way.
  - The audience understands any potential limitations of your approach.

- – A TA or good student in the audience should be able to come up with alternatives and suggestions based on your reasoning.
- **Good** (3/4):
  - – The audience has a clear understanding of the source of your data and can picture how you processed your data, and the effect of the processing on the amount, type, and quality of your data.
  - – The audience has some idea of how your data will be used as input to your model, but the exact details might be unclear.
  - – The audience understands why you decided to process your data a certain way.
- **Fair** (2/4):
  - – The audience understands the effect of the processing on the amount, type, and quality of your data. The source of you data is stated, but isn't clear.
  - – The audience has some idea of how your data will be used as input to your model, but the exact details might be unclear.

Model (out of 4)

- **Excellent** (4/4):
  - – The audience has a clear picture of the various types of networks (CNN, RNN, etc) used in your model. They should also have a sense of how "complex" your model is (e.g. number of layers).
  - – The audience is not overwhelmed with too much information that isn't necessary to contextualize your results.
  - – The audience has enough information to appreciate any intricacies in how you designed your model, or your choice of hyperparameters.
  - – A TA or good student in the audience should be able to compare alternative approaches, and make an educated guess about how their alternative would compare to your model.
- **Good** (3/4):
  - – The audience has a good picture of the various types of networks (CNN, RNN, etc) used in your model. They should also have a sense of how "complex" your model is (e.g. number of layers).
  - – The audience has enough information to appreciate any intricacies in how you designed your model, or your choice of hyperparameters.
  - – The audience might be given too much information that is not necessary to contextualize your results (e.g. too much historical information about what models you tried, but whose results you don't show)
- **Fair** (2/4):
  - – The audience has some idea of what the model you used looks like. They may have questions about the specifics that would influence how they interpret the results.
- **Poor** (1/4):
  - – The audience has many questions about what exactly your model looks like.

Results (out of 4)

- **Excellent** (4/4):
  - – The audience has a precise understanding of the quantitative measurement(s) you used; a good student or TA would be able to compute the measurements themselves if given the model and data.
  - – The audience understands why you chose those measurement(s), and can evaluate whether your reasons make sense.
  - – The quantitative results are displayed in a way that is easy to understand, and in a way that the audience can come to their own conclusions about the performance of your models.
  - – The qualitative results are illustrative, and help the audience contextualize the quantitative results. (e.g. why your model performed well or poorly)
  - – The audience knows how you chose which qualitative results to display, and has the sense that the group is forthcoming in the presentation.
- **Good** (3/4):
  - – The audience has a good understanding of the quantitative measurement(s) you used (there may be some issue with precision that doesn't affect the interpretation of your results)
  - – The audience understands why you chose those measurement(s)
  - – The quantitative results are displayed

    – The qualitative results are illustrative, and help the audience contextualize the quantitative results.
- **Fair** (2/4):
    - The audience has an intuitive understanding of the quantitative measurement(s) you used
    - The quantitative measurements are displayed, but not in a way that is easy to interpret the results.
    - The audience has questions about why you chose to display certain measurements.
    - Some quantitative results may be missing.
    - Some qualitative results are shown.

Discussion and Learnings (out of 4)

- **Excellent** (4/4):
    - The discussion is insightful, interesting, and surprising; the audience learns more from your interpretation and learnings than if they were to look at the raw data themselves.
    - The audience understands and is largely convinced of your interpretation of your quantitative and qualitative results (e.g. about whether your model performed well, and why).
    - The audience sees that the team put a lot of thought into understand what made the model successful or unsuccessful.
    - There is compelling thought and ideas from the learning for future projects.
- **Good** (3/4):
    - The audience understands your interpretation of your quantitative and qualitative results (e.g. about whether your model performed well, and why)
    - The discussion is insightful: the audience learns more from your interpretation than if they were to take a quick look at the raw data themselves.
    - The audience sees that the team put thought into understand what made the model successful or unsuccessful.
    - There is good thought and ideas from the learning for future projects.
- **Fair** (2/4):
    - The interpretation of your quantitative and qualitative results are straightforward
- **Poor** (1/4):
    - The ideas presented are obvious. It appears to the audience that the team did not much thought into the dicsussion.
    - There is little attempt to contextualize the results, or to interpret the results beyond reading numbers.
    - There is no learning for future projects.

Presentation Flow (out of 5)

- **Excellent** (5/5):
    - There is a natural flow in the presentation that keeps the audience engaged. (Make it fun!)
    - The slides are easy to read. The audiences' attention is drawn to the most important information that you want to convey.
    - The font size is large enough to be legible (including captions), and the audience is not overwhelmed with too much text. (Note: don't do what I do with the lecture slides. The lecture slides double as study material. Your slides don't have to.) There is enough time to read each slide.
    - The audience can understand the presentation. Any domain-specific jargon is either avoided or introduced. (Complex concepts may have to be defined multiple times. It is your job to make sure the audience can understand what you're trying to tell them.)
    - The presentation is well-paced. The presenters do not talk too quickly, and are audible at all time.
    - The hand-off between presenters is smooth and well-rehearsed, and does not distract from the presentation.
    - The presenters have good body language, and conveys enthusiasm. They do not distract their team members or the audience when not a different team member is presenting.
- **Good** (4/5):
    - The audience can easily follow your presentation, and are engaged. The flow might be improved (e.g. the audience may have pressing questions that are answered several slides later, rather than right away.)
    - The slides are mostly easy to read, with few distractions or exceptions.
    - The audience can understand most of the presentation content, enough to appreciate your results.
    - The presentation is well-paced. The presenters mostly talks at a good pace, at an audible volume.

- The hand-off between presenters is smooth. The presenters know their own presentations.
    - The presenters have good body language, and conveys enthusiasm.
- **Fair** (3/5):
    - The audience is mostly engaged, but need to work to following parts of your presenation.
    - Some slides are too wordy, too difficult to follow, or highlights the wrong information.
    - The presentation is still mostly understandable, enough to understand your results.
    - The presenters might talk too quickly or quietly at times.
    - The presenters look bored or distracted when not presenting
- **Poor** (2/5):
    - The audience has difficulty staying engaged.
    - Several slides are too wordy, too difficult to follow, or highlights the wrong information.
    - The audience has trouble following parts of your presenation.
    - The presenters might talk too quickly or quietly.
    - The presenters look bored or distracted when not presenting.
- **Marginal** (1/5):
    - The audience is not engaged, and has trouble following/understanding your presentation.
    - There are major issues with the slides (too long, too wordy, not readable in time).
    - The presenters talk too quickly or quietly.
    - The presenters look bored or distracted when not presenting.