

The project progress is a **check-in to show that you are on track** to complete your project. By the project progress date, your team should have:

- ☐ Obtained all or most of the data
- ☐ Come up with a reasonable baseline model
- ☐ Produced at least one qualitative and quantitative result
- ☐ Provide a convincing argument for the feasibility of completing the project within the time available

The report document demonstrates your progress. The document should be **limited to a maximum of 5 pages** and should make use of tables, model diagrams and figures to make the report concise and easy to read. Text should be kept to a minimum and are specified for each of the three sections that are to be submitted.

How to submit

Submit your proposal **individually** on Quercus by **Friday, March 12, 11:59pm**. **Do not submit as a team!**

There is a penalty-free grace period of one hour past the deadline. Any work that is submitted between 1 hour and 24 hours past the deadline will receive a 20% grade deduction. No other late work is accepted. Quercus submission time will be used, not your local computer time or any other screenshots that you provide. You can submit your work as many times as you want before the deadline, so please submit often and early.

Proposal Rubric

The project progress document is graded out of 20 points.

1. Brief Project Description (5 points):

Limit your response to 200 words or less and no more than 1 page.

In your own words provide a brief description of the motivations behind your project, the goal of your project, why it is interesting or important, and why machine learning is a reasonable approach.

- ☐ Someone unfamiliar with the project should be able to quickly establish the project goals, why the project is interesting and/or useful, and why machine learning is an appropriate tool for the task.
- ☐ Provide supporting images and diagrams to minimize the required reading.

- ☐ Visual elements are professional, concise and easy to read.

2. Individual Contributions and Responsibilities (5 points)

Limit your response to 500 words or less and no more than 2 pages.

Provide a summary of how your team is working together. Describe the project management software that you are using to communicate with each other, track progress and results, track updates to shared code, etc.

In your own words you should provide details on what each person is responsible for and has accomplished so far, along with updated list of task and deadlines for each member from your perspective.

- ☐ It is expected that you will provide a great deal of detail on what the expectations are for each team member and what they have completed to date.
- ☐ The progress of the team is well summarized, and it should be easy to determine if the team is on track, falling behind, or unlikely to complete the project.
- ☐ The contributions and quality of communication are clearly and concisely documented for each team member.
 - o If a member has not been contributing equally to the team or failing to meet the deliverables that were agreed to earlier, then this should be made clear in the progress report.
- ☐ An updated project plan and distribution of work is provided.
- ☐ You are expected to provide redundancies for the work you are responsible to do to address the any risks that may prevent you from completing the project, or that plans for how you can obtain help from your team members.
- ☐ The summary is professionally written, concise and easy to read.

3. Notable Contribution (10 points)

Limit your response to 500 words or less and no more than 2 pages.

Provide a detailed summary with results (figures and diagrams) of a **one notable contribution** that you have made to the team project. If your notable contribution was done in partnership with another team member, you should clearly indicate your contributions. This can also include models or testing you had done that did not lead to anything useful, but were a valuable learning experience for the team. Topics for notable contributions can include, but not limited to, one of the following:

Data Processing

If you have taken on a large role in data processing, you can describe the data that you have collected (and cleaned). Be clear and specific when describing what you have done, to the point that someone could reproduce your work. If possible, show some statistics about your cleaned data (e.g. number of examples in each class), and at least one example of a cleaned training sample. You should also mention how you plan to obtain new data for final testing of the model.

- ☐ Clearly describes sources of data, and the steps you took to clean and format your data. Statistics and data example are well-chosen, and shows that you have completed data processing. Data cleaning descriptions are clear enough to reproduce by a classmate.
- ☐ Visual elements are professional, concise and easy to read.
- ☐ Provides a plan for testing on never before seen data.
- ☐ Describe any challenges you may have faced with the task.

Baseline Model

If you have taken on a large role in the development or testing of a baseline model. Then you can provide a diagram to describe the baseline model that you have tested and how it was/will be compared with your primary neural network model. The baseline model can be a simple machine learning model, a hand-coded heuristic model (that does not use machine learning), or something else. The expectations for baseline model will vary from project to project. This can be a simple machine learning model (i.e. SVM, Random Forests, etc.), a hand-coded heuristic model (that does not use machine learning), or something else.

You should also provide at least one quantitative and qualitative result. These results could be learning curves, or results showing the performance of the model on selected samples of data. The focus here is on assessing the feasibility of your model to achieve the project objectives.

- ☐ A reasonable choice of baseline for the problem being solved.
- ☐ The baseline model is easy to implement and requires minimal tuning.
- ☐ Visual elements are professional, concise and easy to read.
- ☐ The best results achieved with your model in terms of quantitative (i.e. accuracy/error/loss) and qualitative (i.e. identify something interesting about how your model performs on select samples or class of samples).
- ☐ Describe any challenges you may have faced with the task.

Primary Model

If you have taken on a large role in the development or testing of the primary neural network model(s). Then you can provide a diagram to describe the best model architecture that you have

so far. This description should be more detailed than in your initial proposal. You should provide a rough idea of how complex your model is (e.g. number of layers, number of parameters), and all the details necessary so that someone can reproduce a model like yours that will perform similarly.

You should also provide at least one quantitative and qualitative result. These results could be learning curves, or results showing the performance of the model on selected samples of data. The focus here is on assessing the feasibility of your model to achieve the project objectives.

- ☐ The choice of architecture makes sense for the problem.
- ☐ The architecture implementation is based on neural networks.
- ☐ Visual elements are professional, concise and easy to read.
- ☐ The best results achieved with your model in terms of quantitative (i.e. accuracy/error/loss) and qualitative (i.e. identify something interesting about how your model performs on select samples or class of samples).
- ☐ Describe any challenges you may have faced with the task.