**Meets Specifications**

Dear student

Great job updating your report! Allow me to be the first to congratulate you on completing the Machine Learning Nano Degree. I've carefully weighed the previous review so that we're not asking for new things from one review to the next. However, I feel that you've met or exceeded the specifications for this course and your deeper dive into computer vision has been quite successful. Again, congratulations on passing and I wish you all the best of luck with your future programming endeavors.

Cheers!

**Definition**

Student provides a high-level overview of the project in layman’s terms. Background information such as the problem domain, the project origin, and related data sets or input data is given.

Nice overview of the problem domain! I love the focus on the real-world impact of the application.

Suggested:

* It's a good idea to cite some of the studies where the machine learning techniques that you're using were pioneered. This shows that you really know the field and it gives credit to the inventors.

The problem which needs to be solved is clearly defined. A strategy for solving the problem, including discussion of the expected solution, has been made.

You've done a great job restating the problem clearly!

Suggested:

* This is a good point to begin to justify why your solution is a good 'fit' for the problem. If you were submitting this to a journal for peer review, you'd want to keep the readers focused on what you want them to think about. If they get distracted, they can ask for random things in subsequent revisions (which can significantly drag out the process and lead to arguments).

Metrics used to measure performance of a model or result are clearly defined. Metrics are justified based on the characteristics of the problem.

Nice job here! Your choice of metric is optimal, and you've done a good job explaining and justifying the Cohen's kappa statistic.

**Analysis**

If a dataset is present, features and calculated statistics relevant to the problem have been reported and discussed, along with a sampling of the data. In lieu of a dataset, a thorough description of the input space or input data has been made. Abnormalities or characteristics about the data or input that need to be addressed have been identified.

I think that you've fully addressed what the previous reviewer asked for. The description of the scope and nature of the dataset is complete. Additionally, a sampling of the data is provided and you've noted some interesting properties of the dataset.

A visualization has been provided that summarizes or extracts a relevant characteristic or feature about the dataset or input data with thorough discussion. Visual cues are clearly defined.

Nice job here! Everything is clearly labeled and described.

Suggested:

* It's a good idea to label or name your figures. This will make the report look more polished and it makes it easier to refer to your data in the text (e.g. "see Figure 1...").

Algorithms and techniques used in the project are thoroughly discussed and properly justified based on the characteristics of the problem.

I think you've provided a great background overview of the techniques you've used in your project. Nicely done!

Student clearly defines a benchmark result or threshold for comparing performances of solutions obtained.

Nice job choosing a relevant benchmark from the literature!

**Methodology**

All preprocessing steps have been clearly documented. Abnormalities or characteristics about the data or input that needed to be addressed have been corrected. If no data preprocessing is necessary, it has been clearly justified.

The preprocessing methodology is fully explained for the reader. I think that a skilled programmer shouldn't have any difficulty reproducing your results (more or less) using only the report. Well done!

The process for which metrics, algorithms, and techniques were implemented with the given datasets or input data has been thoroughly documented. Complications that occurred during the coding process are discussed.

I think that your implementation is fully described. Additionally, you've done a nice job documenting some complications that occurred during the coding process.

The process of improving upon the algorithms and techniques used is clearly documented. Both the initial and final solutions are reported, along with intermediate solutions, if necessary.

One thing that I'd suggest here would be to specifically note how the model performed before and after your refinements. This serves to document that these changes improved the model's performance.

**Results**

The final model’s qualities — such as parameters — are evaluated in detail. Some type of analysis is used to validate the robustness of the model’s solution.

The final results are compared to the benchmark result or threshold with some type of statistical analysis. Justification is made as to whether the final model and solution is significant enough to have adequately solved the problem.

**Conclusion**

A visualization has been provided that emphasizes an important quality about the project with thorough discussion. Visual cues are clearly defined.

Nice job here!

Student adequately summarizes the end-to-end problem solution and discusses one or two particular aspects of the project they found interesting or difficult.

Well done summing up your project and what was accomplished. Keep in mind that this is also a great opportunity to brag a bit about anything exciting or innovative in your implementation.

Discussion is made as to how one aspect of the implementation could be improved. Potential solutions resulting from these improvements are considered and compared/contrasted to the current solution.

**Quality**

Project report follows a well-organized structure and would be readily understood by its intended audience. Each section is written in a clear, concise and specific manner. Few grammatical and spelling mistakes are present. All resources used to complete the project are cited and referenced.

The report follows the project template and is easy to read (thanks...this makes the reviewing process much faster!).

Code is formatted neatly with comments that effectively explain complex implementations. Output produces similar results and solutions as to those discussed in the project.

The code is neatly organized and well commented. The notebook appears to produce the documented output. Well done!