

[< Back to Machine Learning Engineer Nanodegree](#)

Machine Learning Capstone Project

REVIEW

CODE REVIEW

ANNOTATIONS 1

HISTORY

Meets Specifications

Your project is simply breath taking. It clearly bear the mark of a Pro Developer and I see no reason not to graduate you on the spot. Excellently executed, answers went well beyond the requested on many occasions. Congratulation on completing your project. This is really a milestone on your journey as a Data Scientist and a well worth celebration over. I wish you a long and fulfilling career. 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.

- You've clearly conveyed the importance of the background subject as well as mentioning the project origin. Very interesting topic choice.
- Suggestion: There are a few studies on this particular topic around. Would be a really good opportunity to mention those here by link and discuss a little what's been done on this area.
- Suggestion: Here would be a good place to mention the dataset and it's origins

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 expertly described the problem you are about to try to solve as well as an overview of your approach to the solution.

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

- Remarkable description detail and justification of the metrics. Well done!

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.

- The data and their structure were thoroughly discussed and clearly presented. Great overview of the key characteristics of the dataset.
- Good presentation on the dataset sample.
- Informed that there were no Nulls but there were some abnormalities in the data.
- Great use of sample statistics

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.

- Fantastic choice for visualizations, specially with the feature correlation on this section. Relevant aspects are clearly envisioned and thoroughly discussed here.
- Remember to edit out the template reminder here. See the Reviewed report for further detail.

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

- You also clearly defined how those algorithms may answer the question posed on the problem statement. Well done.

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

- Incredibly detailed explanation and reasoning for the chosen benchmark. Well beyond the expected section material. Good job on the extra mile.

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.

- A thorough and detailed discussion, step by step on the work required to prepare your data. Very well done.
- You clearly conveyed the result of the Preprocessing as well as the need for it.

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.

- You detailed the process top-down on how you've implemented the solution required. The implementation was clear enough to be understood and, if desirable, replicated.
- Suggestion: Make sure you clearly document the challenges you faced, and how you overcame them. This helps you gain perspective on your work and also your reader to avoid the harsh patches of your journey. If nothing particularly difficult happened, discuss why you think this was the case

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.

- Your process of refining the Algorithm was clearly stated and justified.
- Suggestion: I would've been good to see the score result before and after the refinement process. This would've helped convey the growth of your model.

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.

- Your final results is clearly presented and properly compared with the pre-tuned result making it real easy to see the improvement.
- The robustness of your model is justified in a objective and definitive matter. Very well done.

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.

- You've have clearly compared your result to your benchmark and justified the achievement of your goal. Nicely done.

Conclusion

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

- You provided a meaningful batch size graphic that depicted a specific quality of the project and discussed it accordingly.

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

- You've thoroughly described your step-by-step process of work from Pre Processing, to Implementation, to refinement.
- You've successfully discussed multiple interesting points as well as challenges. Once again, well beyond what was initially requested. Great job!

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.

- You have successfully described possible improvement points that, given more time and resources you might have used to make your model even more precise. Well done.

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.

- Your report is very clearly written and well organized.
- Some minor edition adjustments are needed. Please check the Reviewed Report for further details.
- Well done including a Reference section with the external sources used in the completion of your work.

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

- Code is very well written but could use a little more commenting. Many great developers went back for an old code snippet and wished they had commented more.

 [DOWNLOAD PROJECT](#)

[RETURN TO PATH](#)

Rate this review