UDACITY

‹ Return to "Machine Learning Engineer Nanodegree" in the classroom

DISCUSS ON STUDENT HUB

Machine Learning Capstone Project

REVIEW

CODE REVIEW

HISTORY

Meets Specifications

Your work was amazing!

You have good stuff here, and I encourage you to keep improving your work to go on with your great trajectory. 👏👏
😄😄😄

Good luck with your next projects!
Wish you the best of luck in your future!

If you want to add me on Linkedin (Rafael Buck) feel free.

Proost!!! 🍺

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.

Incredible work with the opening section. You gave good starting paragraphs to outline the project and provided

Incredible work with the opening section. You gave good starting paragraphs to outline the project and provided basic information about the problem domain 😄

In addition, I found your theme a very interesting field of application for machine learning, and you have correctly proposed a practical approach to solving the problem.

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.

The problem statement is clearly defined. You correctly mentioned that this is a classification problem in this section.

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

Very objective explanation and good choice of your algorithm metric. And it matched perfectly with your problem 😄

Suggested: As machine learning engineers, it is always important to justify why we choose a specific metric to evaluate the performance of our model. We need to explain why some metrics are more important than others to the problem we are analyzing.

- I have attached here a reference, for your future works, that I found about several metrics used for evaluation of machine learning algorithms.
- Here a fascinating reference, that I got from another good reviewer, about Choosing the Right Metric for Evaluating Machine Learning Models.
- And here, another one, that discusses What metrics should be used for evaluating a model on an imbalanced data set, very cool also.

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 exploratory analysis of the data is very good. One thing we need to do at this stage of the project (as well as your future machine learning projects) is to present more business-driven insights, and you did it very well.

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.

Excellent, we're on the right track. Here the idea is, as a machine learning engineer, to introduce early insights to a more business audience, for example investors for your project, and you did very well 😄

Here an interesting reference that could be used in future works to explain some machine learning concepts to your readers: Google's Machine Learning Glossary

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

Perfect! I'm very impressed with the algorithms descriptions 😄

Suggested: It is always a good idea to provide links to references, images, diagrams and examples to validate the information we present in our work.

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

Great choice of the benchmark model!

Suggested: Here is a link to a very cool article about the importance of the benchmark in machine learning work: https://blog.dominodatalab.com/benchmarking-predictive-models/

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.

Excellent job documenting all your pre-processing steps 😄

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.

Excellent step by step process. Your results would definitely be replicable, and you were very clear of how achieved them. Congrats!!!

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.

Great! The model was tuned correctly. As a machine learning engineer it is always important to justify why you have selected the parameters to adjust as well as the ranges of values 😄

Suggested: here a reference of how to tuning deep learning models (convolutional neural networks).

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.

Very well documented the optimised model. Congratulations!

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 compared your results with the benchmark model. By the way, congratulations to the results! 😄

Conclusion

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

Amazing!

Suggested: I will leave here a very cool reference for us, machine learning engineers, to use to explain results. I consider this book sensational and very cool: https://christophm.github.io/interpretable-ml-book/. The LIME method is a good one to explain why some sample belongs to a specific class.

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

Excellent report and problem-solving.

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.

I found the suggestions for future work very interesting. Congratulations! I left some suggestions and ideas in my review that you can explore in the future, if you want. 😄

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.

Excellent report and according to the Udacity's requirements! One of the best I've reviewed 😄

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 executed perfectly.

Suggested : Here is a link to the formatting documentation of Jupyter's markdown. And here's another reference, PEP-8, which guides you how to leave your Phyton code documented with the best practices in the market 😄

DOWNLOAD PROJECT

RETURN TO PATH