UDACITY

PROJECT

Capstone Proposal

A part of the Machine Learning Engineer Nanodegree Program

PROJECT REVIEW

NOTES

SHARE YOUR ACCOMPLISHMENT!

Meets Specifications

Dear Udacian,
You have selected a good project for your capstone. I appreciate your effort of writing such a good proposal. Your proposal seems good so you should start working on the project.
We are excited to see your final work.
Good luck.

SOME SUGGESTION FOR THE FINAL SUBMISSION OF THE REPORT:

- When you add figure in your report please follow this link to add them appropriately. (http://abacus.bates.edu/~ganderso/biology/resources/writing/HTWtablefigs.html)
- Please provide good discussion on your chosen algorithms. (Like good overview of LSTM along with necessary equations)
- Please provide good description of your loss with associate equations.
- Please include necessary comments in your code. Try to create different python scripts for your functions and Classes, then import them to jupyter notebook for using.
- Provide doc-string for every class and function you write (At least one line defining what is the purpose of that class or function).
- When you grid search for parameters please show them in the report. Provide good discussion on your chosen parameters.
- In the result section please provide ideal discussion on your model's performance through comparing your models.

Good luck.

Regards,
Kazi Nazmul Haque!

Project Proposal

Student briefly details background information of the domain from which the project is proposed. Historical information relevant to the project should be included. It should be clear how or why a problem in the domain can or should be solved. Related academic research should be appropriately cited. A discussion of the student's personal motivation for investigating a particular problem in the domain is encouraged but not required.

Awesome:

- First of all your domain background is nicely written and you have provided a very good overview here.
- You have cited some important and relevant research work here.

Student clearly describes the problem that is to be solved. The problem is well defined and has at least one relevant potential solution. Additionally, the problem is quantifiable, measurable, and replicable.

Awesome:

- I see that your problem is clearly defined here. You have talked about your solution here too.
- Good job proposing two problems. One Regression and another one is classification.

The dataset(s) and/or input(s) to be used in the project are thoroughly described. Information such as how the dataset or input is (was) obtained, and the characteristics of the dataset or input, should be included. It should be clear how the dataset(s) or input(s) will be used in the project and whether their use is appropriate given the context of

the problem.

Awesome:

- You have chosen a very good dataset for your problem.
- Nice to see your visualization here.

Student clearly describes a solution to the problem. The solution is applicable to the project domain and appropriate for the dataset(s) or input(s) given. Additionally, the solution is quantifiable, measurable, and replicable.

Awesome:

- Your solution statement seems good to me. You can try more feature engineering technique here. LSTM is a good choice here. Also, Try GRU for comparison.

Suggestion:

- What ever algorithm you use the performance will not increase dramitacally. You need more information about the stock which is different from this dataset.
- If and only if, you want to carry out more complex work then I will suggest you to incorporate more information like positive news and negative news in the dataset.
- For comparision you can try some other algorithms.
- Have you thought about reinforcement learning.
- You can practice your works in quantopian (https://www.quantopian.com/). It will be fun.

A benchmark model is provided that relates to the domain, problem statement, and intended solution. Ideally, the student's benchmark model provides context for existing methods or known information in the domain and problem given, which can then be objectively compared to the student's solution. The benchmark model is clearly defined and measurable.

Awesome:

- Your benchmark seems okay to me.

Student proposes at least one evaluation metric that can be used to quantify the performance of both the benchmark model and the solution model presented. The evaluation metric(s) proposed are appropriate given the context of the data, the problem statement, and the intended solution.

Awesome:

- RMSE is a good choice here.

Suggestion:

- If you try to solve the classification problem too, you can try F1 score as metric.

Student summarizes a theoretical workflow for approaching a solution given the problem. Discussion is made as to what strategies may be employed, what analysis of the data might be required, or which algorithms will be considered. The workflow and discussion provided align with the qualities of the project. Small visualizations, pseudocode, or diagrams are encouraged but not required.

Awesome:

- You have nicely discussed the workflow. I think it's okay.

Proposal 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 and referenced are properly cited.

Awesome:

- Your proposal is well written and nicely organized.

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Student FAQ