UDACITY

PROJECT

Capstone Proposal

A part of the Machine Learning Engineer Nanodegree Program

PROJECT REVIEW

CODE REVIEW

NOTES

SHARE YOUR ACCOMPLISHMENT!

Requires Changes

2 SPECIFICATIONS REQUIRE CHANGES

Hi,
Great idea for your project! It is not only a challenging problem, you already have a sound strategy to cope with it. Regarding your specific comments:

I've only added the PDF for the proposal in order to have an initial feedback.
I wonder what I would be evaluating if you really meant business! Because this is a good submission :)

The required data files will be collected by myself by using custom software I need to write.That's why they are not available yet. I'd like first to have some feedback to verify if this is a suitable proposal before going on with data collection. Thank you.
Please, go ahead and start. You can resubmit your proposal addressing the required changes before you finish your code to acquire the data if you want.

Best Regards.

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.

1. **awesome:** wow! really nice that you are working on a real world problem that is directly related to you.
2. **suggestion:** you should look for existing academic research on similar problems. Not only to provide references and make your domain background look nicer, but in fact you should do that to obtain ideas from what other people have used and tried for similar problems. For example, this survey looks very promising as it presents several wireless networks problems and their respective proposed solutions via machine learning.

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.

1. **awesome:** the problem statement is looking good, you do provide a more thorough explanation about the real world problem, present your current naive solution (which may serve as your benchmark) and finally explain how you plan to model this as a machine learning problem.
2. **required:** to improve your problem statement you will need to elaborate a bit more on how you model it as a classification problem. Based on the Domain Background introduction, it seems that you want to locate people on multiple rooms instead of just one, so your class labels would be something like: IN_ROOM_A, IN_ROOM_B, ..., or something like that. Are you going to track multiple individuals with the same model or you assume that there is only one individual to be tracked by each model? Both can be dealt with, but the solution can get a bit more complicate if you assume multiple individuals at the same time. In practice, you may want to have one model per individual.
3. **suggestion:** mention that this concerns a time series analysis problem.
4. **suggestion:** the way the authors model the problem in this work might be interesting to you, please take a quick look and see if there is something meaningful for your work in it.

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.

1. **awesome:** the level of detail and discussion here is appropriate for the stage of the project, so you discuss the features, explain why you should not "force" more

features (otherwise the model will not be usable in practice) and so on.
2. **required:** following my request in the problem statement, please elaborate on how you are going to organize the class labels, this is something that you can do right now.

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: the solution is appropriate and thoroughly discussed.

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: great benchmark:

"AS A BENCHMARK MODEL I WILL USE THE RESULTS OF OUR CURRENT IMPLEMENTED SOLUTION"

At the end of the project you will be able to clearly observe the improvements over the current solution.

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: the evaluation metric is clearly presented and explained. Excellent job!

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.

1. **suggestion:** there is not problem with that:

   "I CAN'T RELEASE THIS CODE BUT IT IS NOT PART OF THE SOLUTION."

2. **awesome:** in general the project design is really good, it is aligned with the solution statement and provide details about other aspects such as data acquisition.
3. **suggestion:** you may want to list the project steps using a numbered list, e.g.:
   (1) Data acquisition code implementation: ...
   (2) Acquiring labeled data: ...
   ...

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.

RESUBMIT

DOWNLOAD PROJECT