

after reviewing the submissions for the first task (everyone who submitted can continue the course), here are some hints on how to improve for the next reports. Note that some of the following was not required for the warm-up and is just listed there as a general guideline.

#### Data Analysis:

- Use descriptive axis labels in your plots (i.e., not just x and y)
- If you plot metrics like mean, variance, etc., please explain in the text why they are important for your analysis.
- Trends in data can be best visualized by fitting curves to the data.
- It's often very easy to build a simple classifier/predictor with reasonable performance for a problem, but very hard to squeeze out additional performance afterwards. It's thus helpful to have a very close look at the data and from there, to construct new features. For instance, as listed in the task description, weathersit was not a particularly precise feature, as it just provided only a coarse categorization (e.g., even for Hurricane Sandy, the weathersit was 3, which obviously doesn't fit very well). In these situations, it might be helpful to have a closer look (also at external data sources) to gain more insights into the data.
- Be careful not to mix up correlation with causation (see <http://www.tylervigen.com/spurious-correlations>)

#### Model description/evaluation:

- It is important that you give reasons for your steps (e.g.: why did you do a certain feature transformation?) and that you explain all of your observations (e.g.: why is there no linear dependency in the data and why do you think that this is bad for doing linear regression?)
- In case you used multiple steps, illustrate the way you took from your first model to your final model. Show how you improved with each step and explain why.
- Explain why you used the parameters (e.g., the max\_depth value of your decision tree) you ended up using in your model(s).
- When you find that your model performs good in most cases, but not good in few cases, have a closer look at these few cases - you can gain insights from there that may help you to tune your model a bit further.