

Case Study Performance Evaluation

1. Key machine learning and data analysis ideas learned during this case study

I personally learned more about how to manually design a decision tree and calculate a model's effectiveness; all of which I will need to know so that these tools remain that: a means to help me easily do something I can already do. Regarding the measures of a model's effectiveness: learning the differences between recall, precision, accuracy, and other measures of model effectiveness has already been very helpful with this last. I was surprised to see how heavily a model can be skewed when the target value is underrepresented, but that will be something I will be keeping an eye out for in the future.

2. Next steps if there is more time

The next steps I think we would need to take is to further clean the data! I feel like there was more that could be done to solidify the validity of the model's results. I would also like to further understand the work of my teammates and make sure their methods and underlying assumptions are correct

3. Biggest obstacles our team faced

Besides learning new information, our biggest obstacle was direction. I think we struggled at first to understand where we wanted to take things and what our plan was. As time went on, we got our feet more under us and things progressed a lot faster.

4. My evaluation of our team's overall performance on this project

1.5 - David went above and beyond by using a decision tree model we were not taught; however, I do not think the rest of us have any idea how he did it. Also, only half of our GitHub gists were ever uploaded due to technical issues. So, at present there is a risk that there David and Jordan's work will be lost over time if not soon retained in your company's records.

5. Individual performance reviews directed to each team member

As for Jordan - Jordan, your preparation both during this project and (apparently) in your prior projects and courses helped you to know what was going on at every part of the project and you seemed to never be confused about anything. If you ever were confused, you quickly got up to speed and helped move the project forward at great speed. These are great qualities to have in a leader! You also made sure to check in each meeting to see what had been accomplished and made sure to get an idea of what our next steps would be between meetings. You did not make sure we gave you substantial reports that would help you make

sure we would complete the project on time. I recommend writing down what people say they will do and confirming with them when they expect they will have it completed and when you will check to see if it has been done. That way you can reference what you wrote down and not let anything slip away; especially when it is your superiors making the commitment. Not doing so could create a lot more work for yourself.

As for David - David, you are very much a pace setter for this project and as a result we finish on time, otherwise I am certain we would not have been able to finish on time, at least not with hours more of outside work. While you are keeping us on target for completion, remember it is important to make sure you are not leaving any of your team behind in the process. In the field, when a teammate or a client does not understand what you are doing, being able to quickly help them to understand will save people's careers and make you an invaluable asset wherever you work. Not to mention the easiest time to practice this will be in a training setting like this one.

As for Joshua - Joshua, your work with splitting the model into providing us some visualizations to show our client why we did was extremely helpful, and you did it in just a few hours if that. On top of that it vastly improved our top recall result via the high consumer confidence index model. It is being able to crank things like this when it is really needed that can make a project or (unfortunately) break it if relied upon too much. My advice for you would be to focus on more preparation before the we you meet with a group. This team moves quickly (as I am sure the other teams, you will be one in the future will). Just make sure you arrive with something already in mind to contribute to an assignment and I am sure you will raise the bar for the entire team.

As for myself - I did a good job on not letting anyone be further behind than I was. However, I would want to be better prepared so that I can help the whole team next time around instead of one or two. Also, going back and documenting the scope of work saved us from leaving half of the tasks undone. In the future I will need to make sure I speak up sooner once I notice such issues even if I am feeling overwhelmed.