Data Science Case Study

Your company, Acme Co., sources candidates for companies hiring new employees. Recently, a number of our clients have complained that candidates have not been showing up to interviews. Your boss has provided you with the attached data set in hopes that you can find some way of identifying candidates at risk of not attending scheduled interviews

## Task 1 - Model Development

1. Create a model predicting if a candidate will attend an interview. This will be indicated by the "Observed Attendance" column in the data set. Create the model only using the records where this column is not null. Treat your notebook as if a technical product manager will be reading it and trying to understand your work.
2. Provide a probability and a prediction output for the candidates where the "Observed Attendance" column is null.
3. Pick one or more accuracy metrics for training and testing sets.

## Part 2 - Model Interpretation

A client has scored a candidate with your model and it gave the candidate a 30% chance of attending the interview. However, the candidate did come to the interview. The client would like to know why there is this apparent discrepancy in your model.

* How would you explain this occurrence? What would you have ideally done to prevent this confusion with the client? Do your accuracy metrics help explain this?
* Could you provide a better way for the client to evaluate your model's performance?
* What accuracy metrics would help explain this gap in understanding?

## Part 3 - Submission Instructions

1. create a folder and place all the following inside:
   1. The code used to create your model in a jupyter notebook
   2. A csv containing the predictions from Task 1b. Make sure to include the "Name(and ID)" column, the probability of attendance, and the predicted attendance (yes or no)
   3. A few paragraphs in response to Task 2. You can format this cell as markdown in your notebook
2. Put all the files in one folder then ZIP it up into a single file.
   1. Send the ZIP file via email back to Brian Tang (btang@vsco.co)

Good luck and have fun!

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