Call Time Predictive Model

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1. What is the overall objective of your project?

Create a machine learning model to predict the best time to call people based of previous call-center data.

1. Where/how are you going to obtain the data? For example, do you need to scrape the data from a web source, contact a company or individual for access/permission?

My job at Home Care Pulse has me in a position where I can use a copy of our database. It is really fortunate that we have the opportunity to work with it.

1. Are there any copyright or terms of service limitations that may affect your ability to work with the data?

I have anonymized the data by taking out names, phone numbers, and specific client information. Other than that, we won't be needing any personal data for our model,

just times in which people have received calls and when they have answered interviews in the past.

1. What type of machine learning algorithm / process do you anticipate using (e.g., classification, regression, clustering) and if applicable, what variable(s), in particular, will you be trying to classify, etc.

We are thinking a classification model will be best suited for the project, however, we need to experiment with the data to better understand what we are looking at.

1. How many and what type of attributes do you anticipate? (e.g., less than than 10 vs. 50-100, numeric vs. nominal, time-series data, etc.)

We have a lot of time-series data to work with and hundreds of attributes at our disposal. It's really just a matter of deciding what we want to use and how we want to use it.

1. How many instances or records do you anticipate?

For testing purposes, we will probably build the model around 50k different observations, but we have 1 million+ observations to work with in the total dataset once we build the model.

1. What do you see as the biggest risk to the success of your project?

Time and dedication are probably the main factors which will play into our project being high quality or not. This is obviously true in many situations, but this project could be a great resume item for us. We don't want to waste it for sure.