

1 What is your predictive model?

a. Describe the arithmetic clearly so that another learner could implement your model on new standardized input data if they wished.

b. Give an example of the score you would assign the following applicant, whether they would be approved or rejected for a credit card and why.

My predictive model is

$$(\text{Income} - \text{Credit Card Debt} - \text{Auto Debt}) / (\text{Age} * \text{Years at employer} * \text{Years at address})$$

the less outcome, the better. Then, I did standardized Data by using

$$(\text{Output from my model per applicant} - \text{mean}) / \text{Std.}$$
 and my conclusion is

When the output from standardized test ≤ -0.20 that mean the bank can approve, while

when the output from standardized test > -0.20 that mean the bank should reject.

2 Give an example of the score you would assign the following applicant, whether they would be approved or rejected for a credit card and why.

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Age: -0.06

Years at employer: 0.23

Years at address: -0.58

Income: -0.38

Credit card debt: 0.14

Auto debt: -0.06

According to my model, the bank would approved this applicant which the test score is -0.278, less than -0.2.

What would the bank's average profit per applicant be (net profits divided by 200) when using your predictive model on the Training Set?

The bank's average profit is \$2,011 per applicant when using my predictive model on the training set.

What is the incremental financial value per applicant of your model over no model on the Training Set?

The incremental financial value per applicant of my model over no model on the Training Set is \$122 per applicant.

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Evaluate your model on the Test Set data. How confident are you that your model does not over-fit the Training Set data?

A. Choose between three broad degrees of confidence: ♦very♦ ♦somewhat♦ or ♦not at all♦. (Note that ♦not at all♦ is still an acceptable answer if you give persuasive reasons for why you chose this answer).

B. Explain the evidence your degree of confidence is based upon. Your explanation should include the test set profits and training set profits per applicant.

How much confidence to have in the model must relate to the relationship between the profits-per-applicant on the Training Set and the Test Set

The relationship between the predictors and response is highly.