

Domain Learning

Domain Learning

What: In this section, you are trying to acquire knowledge and identify patterns in the domain of credit risk using the information provided by the AI system. The questions in this section test if you are able to gain a comprehensive understanding of how certain variables and features contribute to the prediction of credit risk. The idea here is that if you are able to use the information provided by the AI system to extract insights about how features contribute to AI predictions, you can apply this knowledge to obtain favorable outcomes.

* Prediction

Instance:

489 X ▾

label probability

Bad 23.7 %

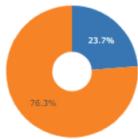
Credit

Risk

Good 76.3 %

Credit

Risk*



* indicates observed label

What is the model's prediction for applicant 489?

💡 Tip: If the model's prediction probability for an applicant as "good credit" risk is above 50%, the model prediction for that instance is "good credit risk", and vice versa

① Please select one answer

Good credit risk.

Bad credit risk.

*

Prediction

Instance:

489 X ▾

label probability

Bad 23.7 %

Credit

Risk

Good 76.3 %

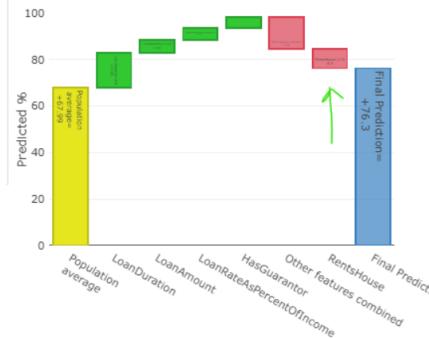
Credit

Risk*

* indicates observed label

Contributions Plot

Contribution to prediction probability = 76.3%



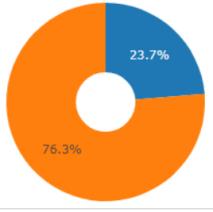
How does increasing the "rents house" attribute impact the model predicted probability of 76.32% of 489 being a good credit risk?

💡 Tip: The attributes coded as red, decrease the prediction probability if increased and vice versa. The attributes coded as green, increase the prediction probability if increased and vice versa.

① Please select one answer

- Increases the probability of being a good credit risk
- Decreases the probability of being a good credit risk

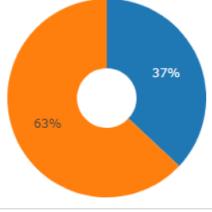
Prediction	
label	probability
Bad Credit Risk	23.7 %
Good Credit Risk	76.3 %



489 × ▾

LoanRateAsPercentOfIncome
2
Range: 1-4

Prediction	
label	probability
Bad Credit Risk	37.0 %
Good Credit Risk	63.0 %



489 × ▾

LoanRateAsPercentOfIncome
3
Range: 1-4

What would be the impact on the model-predicted probability of being a good credit risk for applicant 489 if the *loan rate as a percent of income* is increased from 2 to 3?

① Please select one answer

- Increases the probability of being a good credit risk
- Decreases the probability of being a good credit risk

Feature	Value	Probability
1. CriticalAccountOrLoansElsewhere	1	0.237
2. CheckingAccountBalanceGreaterOrEqualTo0	0	0.188
3. HasTelephone	1	0.158
4. YearsAtCurrentJobGreaterOrEqualThan4	0	0.158
5. loanpurposeElectronics	1	0.158

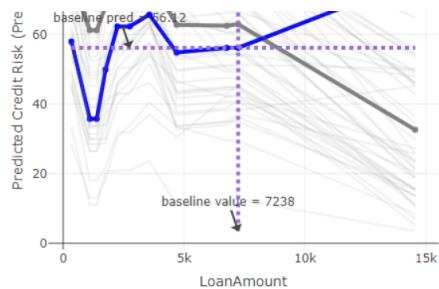
What are the three most important features for determining whether an applicant is a good or bad credit risk?

① Please select one answer

- loan purpose electronics, has a telephone, Account Balance
- critical account/loans elsewhere, Account Balance, Has a telephone
- critical account/loans elsewhere, Account Balance, Years at current job

* Feature: Instance: pdp plot for LoanAmount



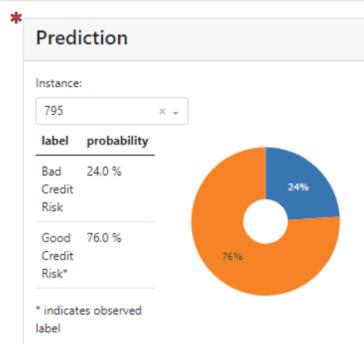


What is the loan amount of applicant 467?

💡 Tip: You can find the feature values next to the baseline value field.

➊ Please select one answer

- 7233
- 7238
- 7230



What is the likelihood of applicant 795 being a good credit risk according to the model?

➊ Please select one answer

- Very likely (more than 75%)
- Not very likely (less than 25%)

Decision Support

Decision Support

What: In this section, you are trying to make decisions with the help of the Credit risk prediction AI. The questions in the section assess if you understand the reasons behind the AI system's predictions and when you should exercise caution while considering the AI predictions for your decision. The idea here is that the AI system should communicate the uncertainty and limitations of the predictions. It should give you easy-to-understand information that is actionable for making decisions.

*

For all the instances in the data, the model typically predicts incorrect:

```
if (nocurrentloan > 0.5) and  
(savingsaccountbalancegreaterorequalthan200 <= 0.5)  
then then the model is incorrect 100.0% over 6  
samples
```

```
if (nocurrentloan <= 0.5) and (loanduration <= 33.8)  
and (age <= 21.5) then then the model is incorrect  
60.0% over 5 samples
```

For the data with id equal to 272, the features are

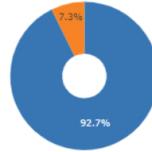
```
gender: 1  
foreignworker: 0  
single: 1  
savingsaccountbalancegreaterorequalthan200: 0  
loanduration: 48  
nocurrentloan: 1  
loanrateaspercentofincome: 4
```

Prediction

Instance:

272 X

label probability



* indicates observed label

You are given the model's error probabilities on similar profile categories, the details of applicant 272's profile, and the prediction made by the model for this applicant. How likely is it, that the model is correct or incorrect about 272?



Tip: You need to make the choice depending on the error probability of the model prediction given the profile categories, and not just the confidence of the model prediction.

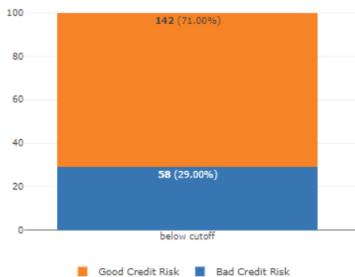
Please select one answer

- Most likely correct (less than 25%)
- Most likely incorrect (more than 75%)

*

Classification Plot

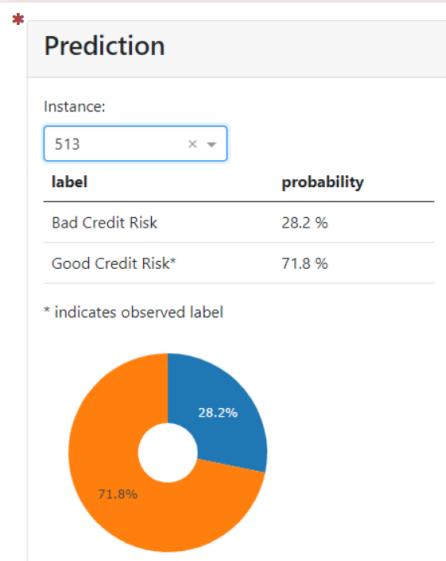
Distribution of labels above and below cutoff



Select the statement that is true about the distribution of the model predictions.

Please select one answer

- The model predicts more than a quarter applicants as Bad Credit Risk
- The model predicts less than a third applicants as Good Credit Risk

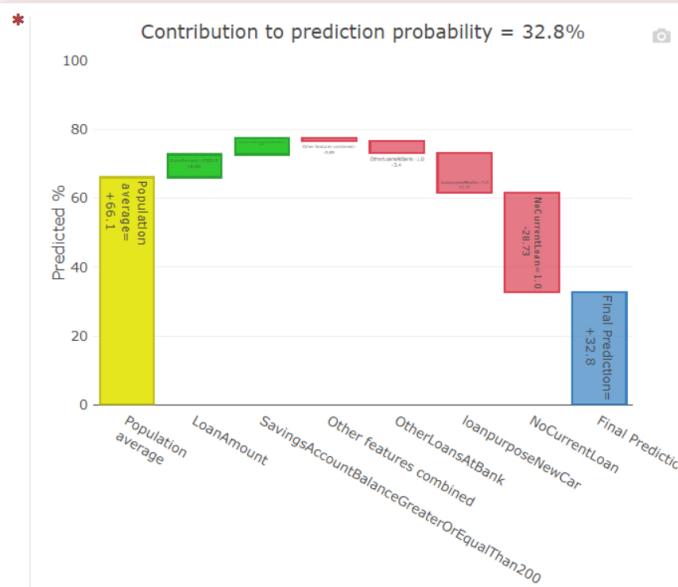


What is the model's prediction for applicant 513?

💡 Tip: If the model's prediction probability for an applicant as "good credit" risk is above 50%, the model prediction for that instance is "good credit risk", and vice versa

ⓘ Please select one answer

- Good credit risk.
- Bad credit risk.



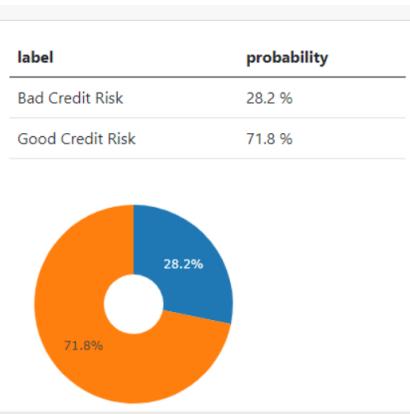
Does not having a current loan impact the model's prediction for applicant 513 more or the loan amount?

ⓘ Check all that apply
 ⓘ Please select one answer

- Not having a current loan has more impact.
- Loan amount has more impact

*** Prediction**

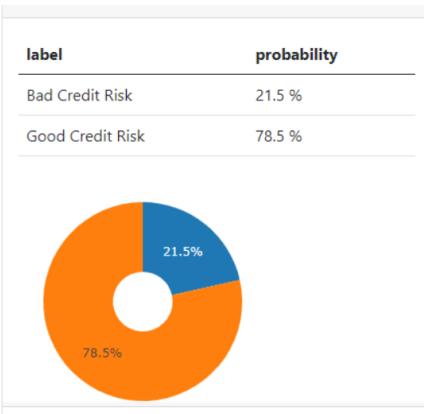
Prediction



513

LoanDuration

12



513

LoanDuration

11

Range: 6-60

How does decreasing *loan duration* from 12 to 11 impact the model-predicted probability of being a bad credit risk for applicant 272?

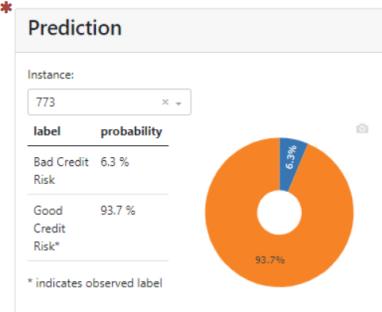
① Please select one answer

- Increases the probability of being a bad credit risk.
- Decreases the probability of being a bad credit risk.

Capability Assessment

Capability Assessment

What: You were just introduced to the Credit risk prediction AI. Your task is to explore the AI system's functionality and assess its applicability to your role if you were a loan officer. The questions in this section will be investigating your perception of the system's predictive abilities, the reasons prompting those predictions, and the specific scenarios or conditions where the system may produce incorrect predictions. The idea here is, by gaining insights into the system's strengths and weaknesses, you will be better equipped to decide when and how to utilize the AI system in the credit risk assessment process.



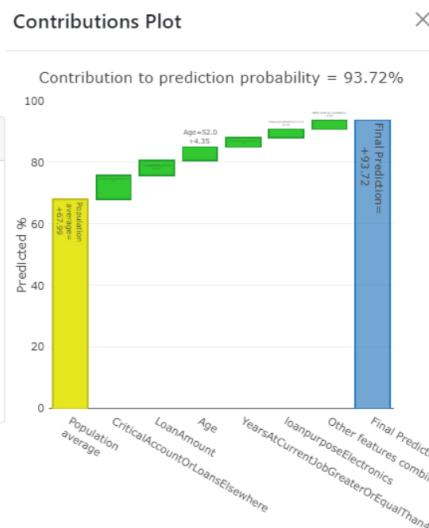
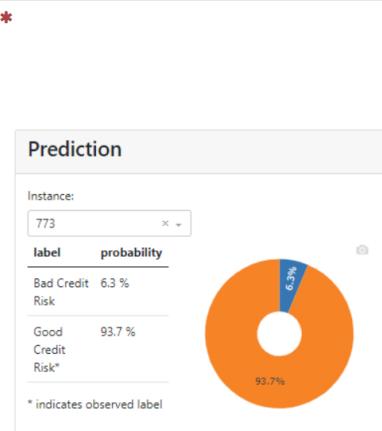
What is the model's prediction for instance id 773?

💡 Tip: If the model's prediction probability for an applicant as "good credit" risk is above 50%, the model prediction for that instance is "good credit risk", and vice versa.

This is a question help text.

Please select one answer

- Good credit risk.
- Bad credit risk.



What are the three most important features for determining whether applicant 773 is a good or bad credit risk?

Please select one answer

- Age, Loan amount, loan purpose is electronics
- Loan amount, Critical account or loan elsewhere, age
- Age, Loan amount, Years at current job

*** Prediction**

label probability

Good 78.0 %

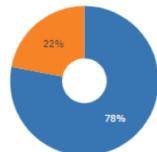
Credit

Risk

Bad 22.0 %

Credit

Risk



Feature Input

Adjust the feature values to change the prediction

698	x
CriticalAccountOrLoansElsewhere	<input type="button" value="▼"/>
0	<input type="button" value="▲"/>
Range: 0.0-1.0	

*** Prediction**

label probability

Good 46.0 %

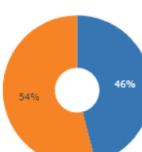
Credit

Risk

Bad 54.0 %

Credit

Risk



Feature Input

Adjust the feature values to change the prediction

698	x
CriticalAccountOrLoansElsewhere	<input type="button" value="▼"/>
1	<input type="button" value="▲"/>
Range: 0.0-1.0	

If applicant 698 does have a critical account or loan elsewhere, would it increase or decrease his chances of being predicted as a good credit risk (from 78%)?

Tip: Check the screenshot for relevant information. The value 1 means the applicant *has a critical account or loan elsewhere* and 0 means the opposite.

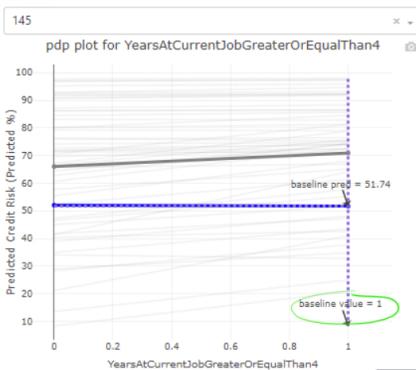
Please select one answer

- Increases the probability of being predicted as a good credit risk.
- Decreases the probability of being predicted as a good credit risk.

***** Feature:

YearsAtCurrentJobGreaterOrEqualThan4

Instance:



Has applicant 331 been on the current job for at least 4 years?

Tip: Check the screenshot for relevant information. The value 1 means yes and 0 means no.

Please select one answer

- No
- Yes

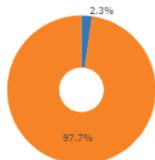
*** Prediction**

*** Prediction**

Instance:

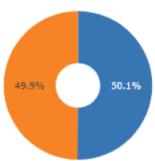
Instance:

196



* indicates observed label

971



* indicates observed label

Which of the model predictions is more likely to be correct? That of applicant 971 or applicant 196?

① Please select one answer

- applicant 971
- applicant 196