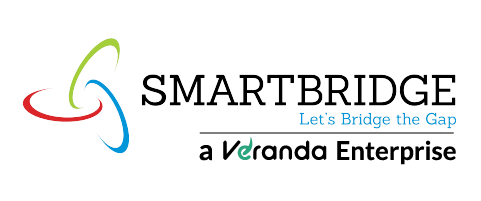
|  |  |  |  |
| --- | --- | --- | --- |
| **Feature** | **Description** | **Selected (Yes/No)** | **Reasoning** |

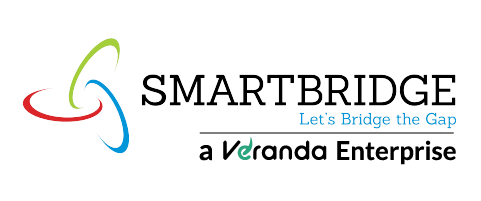
**Model Development Phase Template**

|  |  |
| --- | --- |
| Date | O5-07-2024 |
| Team ID | 739697 |
| Project Title | SmartLender - Applicant Credibility  Prediction for Loan Approval |
| Maximum Marks | 5 Marks |

**Feature Selection Report Template**

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

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| --- | --- | --- | --- |
| accelerations | Acceleration is the rate at which an object's velocity changes over time. | Yes | It measures how quickly an object's velocity changes over time. |



|  |  |  |  |
| --- | --- | --- | --- |
| fetal\_movement | Movements of the fetus in the womb; indicates fetal activity and health. | Yes | Monitoring these movements helps assess the well-being and development of the fetus. |
| uterine\_contractions | Muscle contractions of the uterus; indicate labor or prelabor activity | Yes | Tracking contractions helps in managing labor and diagnosing potential complications. |
| light\_decelerations | Brief reductions in fetal heart rate; usually benign. | Yes | These typically indicate minor stress or a normal fetal response. |
| severe\_decelerations | Significant drops in fetal heart rate; indicate potential distress. | Yes | These are concerning and require immediate medical attention to prevent fetal harm. |
| prolongued\_decelerations | Sustained drops in fetal heart rate; suggest serious issues. | Yes | Prolonged decelerations can indicate fetal hypoxia or other critical conditions. |
| abnormal\_short\_term\_variability | Unusual  fluctuations in fetal heart rate; indicates potential distress. | Yes | Abnormal variability can be a sign of fetal compromise requiring further evaluation. |
| mean\_value\_of\_short\_term\_variability | Average of shortterm fluctuations in fetal heart rate; assesses overall heart rate stability. | Yes | This metric helps evaluate fetal autonomic nervous system function and overall well-being. |

|  |  |  |  |
| --- | --- | --- | --- |
| percentage\_of\_time\_with\_abnormal\_long\_term\_variability | Proportion of time fetal heart rate  shows abnormal fluctuations; indicates fetal distress. | Yes | Prolonged abnormal variability suggests potential chronic fetal issues needing intervention. |
| histogram\_min | Lowest value in a data set; shows the minimum data point. | Yes | Indicates the lowest observed measure in the dataset, useful for range analysis. |
| histogram\_max | Highest value in a data set; shows the maximum data point. | Yes | Indicates the highest observed measure in the dataset, important for range analysis. |

|  |  |  |  |
| --- | --- | --- | --- |
| histogram\_number\_of\_peaks | Number of modes  in the data set; indicates data distribution complexity. | Yes | Multiple peaks can signify multimodal distributions or various data clusters. |
| histogram\_number\_of\_zeroes | Frequency of zero values in the data set; indicates data sparsity. | Yes | High zeros can indicate frequent null or baseline readings. |
| histogram\_mode | Most frequent value in a data set; represents the data's central tendency. | Yes | Indicates the most common occurrence in the dataset, useful for understanding predominant values. |
| histogram\_mean | Average value of data points. | Yes | Indicates the central level of the data. |
| histogram\_median | Middle value of sorted data points. | Yes | Provides a central value less affected by outliers. |
| histogram\_variance | Measure of data spread around the mean. | Yes | Indicates the variability of the data. |
| histogram\_tendency | Overall pattern or trend of the data distribution. | Yes | Helps identify the nature and shape of the distribution. |
| baseline | The baseline is the initial standard or reference point for measurements and comparisons | Yes | It serves as a starting reference point for comparing data. |
| Fetal health | Fetal health refers to the condition and development of a fetus during pregnancy, assessed through medical evaluations. |  | The target variable for predictive modeling – is essential for the project's goal. |