

Variable Summary Table

| Description of Variables | # Variables Created |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Age When Apply Age of the applicant upon application submission | 1 |
| Day of Week Target Encoding Average fraud percentage of that day | 1 |
| Days Since Number of days since an application with that entity was last seen | 23 |
| Velocity Number of records with the same entity over the last 0,1,3,7,14,30 days | 138 |
| Relative Velocity Ratio of the short-term velocity (0,1 days) to a longer-term (3,7,14,30 day) averaged velocity | 184 |
| Count by Entities Count of unique values for an entity comparing with another entity over the period of 0,1,3,7,14,30,60 days | 3542 |
| Maximum Indicator Maximum count of each entity over the period of 1,3,7,30 days | 92 |
| Age Indicator Include the maximum value, minimum value and the average value of applicants' age by each entity | 69 |
| Total Number of Variables | 4050 |
| Total Number of columns 2 original columns are 'Record' and 'fraud_label' | 4052 |
| After deduplication, there were 2242 columns left. | |