## LightGBM Test

* Initial Trial – With Imbalance features
* Trial without any engineered features
* Trial by reducing the number of features to 10
* Trial by reducing the number of features to 8
* Trial by reducing the number of features to 7
* Trial with tuned hyper parameter

## Initial Trial

A graph with text on it

Description automatically generated

A graph with text and numbers

Description automatically generated

A graph with numbers and lines

Description automatically generated

A graph with text on it

Description automatically generated

A graph with numbers and lines

Description automatically generated

A graph with blue lines

Description automatically generated

A screen shot of a computer

Description automatically generated

A graph with blue squares

Description automatically generated

A computer screen shot of a number

Description automatically generated

A graph with blue dots and red lines

Description automatically generated

A graph with blue and white bars

Description automatically generated

# Summary Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Title | Training Score | | Validation Score | | Test Score |
|  | Average | Best Validate | Average | Best |  |
| Initial | 6.11303 | 6.30488 | 6.38752 | 5.84634 |  |
| Without Imb Features | 6.13648 | 6.33462 | 6.43613 | 5.87639 |  |
| 10 features | 6.13952 | 6.33684 | 6.44559 | 5.87780 |  |
| 8 features | 6.14773 | 6.34026 | 6.41787 | 5.87206 |  |
| 7 features | 6.16289 | 6.35520 | 6.4415 | 5.89113 |  |
| Tuned Hyper1 | 6.10846 | 6.32196 | 6.57268 | 5.88589 |  |