|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ALGORITHM\  SYNTHETIC DATA | Bin 1 | Bin2 | Bin3 | Bin4 | Bin5 | Bin6 |
| E-LSTM | 0.016318 | 0.016469 | 0.001810 | 0.014894 | 0.007764 | 0.023984 |
| E-ARIMA | 2.320398 | 2.503181 | 2.579428 | 2.260030 | 2.296470 | 2.869353 |
| XGBoost | 1.013249 | 0.968422 | 1.233444 | 0.870231 | 0.948032 | 1.043573 |
| E-SARIMAX | 1.158257 | 1.379121 | 1.427067 | 1.448888 | 1.280709 | 1.358173 |

**RMSE Values for each bin Time Only. (1 day)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ALGORITHM\  SYNTHETIC DATA | Bin 1 | Bin2 | Bin3 | Bin4 | Bin5 | Bin6 |
| E-LSTM | |  | | --- | | 2.6304 |  |  | | --- | |  | | 2.503 | 2.6588 | 2.4288 | |  | | --- | | 2.4912 |  |  | | --- | |  | | |  | | --- | | 2.9865 |  |  | | --- | |  | |
| E-ARIMA | 1.2132 | |  | | --- | | 1.1684 |  |  | | --- | |  | | 1.4334 | 1.0702 | |  | | --- | | 1.1480 |  |  | | --- | |  | | 1.2436 |
| E-SARIMAX | 0.2163 | 0.2165 | 0.2018 | 0.2149 | 0.2078 | 0.2239 |

**RMSE Values for each bin Day Only.   
Average of 1 day , 7 day ,15 days 2pm only**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ALGORITHM\  SYNTHETIC DATA | Bin 1 | Bin2 | Bin3 | Bin4 | Bin5 | Bin6 |
| E-LSTM | |  | | --- | | 0.2163 |  |  | | --- | |  | | 0.2165 | 0.2018 | 0.2149 | |  | | --- | | 0.2078 |  |  | | --- | |  | | |  | | --- | | 0.2239 |  |  | | --- | |  | |
| E-ARIMA | 2.4204 | |  | | --- | | 2.7032 |  |  | | --- | |  | | 2.7794 | 2.4600 | |  | | --- | | 2.4965 |  |  | | --- | |  | | 3.0694 |
| E-SARIMAX | 1.1132 | 1.0684 | 1.3334 | |  | | --- | | 1.1702 |  |  | | --- | |  | | 1.2480 | 1.3436 |
| XGBoost | 1.3583 | 1.5791 | 1.6271 | 1.6489 | |  | | --- | | 1.4807 |  |  | | --- | |  | | 1.5582 |

**RMSE Values for Date and Time.   
Average of 1 day , 7 day ,15 days at 10am , 12pm,4pm,6pm and 8pm**

**Key Notes –**

* **E-SARIMAX Performs the best when no time component is added**
* **XGBOOST Is consistent for the given data set**
* **E-LSTM is the best when it has to deal with data with time component**