**Gradient Boosting Machine (GBM)**

|  |  |  |
| --- | --- | --- |
| **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 7.39.39 PM.png** | | **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 7.39.47 PM.png** |
| **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 7.39.55 PM.png** | | |
| **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 7.40.23 PM.png** | **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 7.40.35 PM.png** | |

Model Details:

==============

H2OBinomialModel: Gradient Boosting Machine

\*\* Reported on training data. \*\*

Confusion Matrix for F1-optimal threshold:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | false | true | Error | Rate |
| FALSE | 567280 | 20190 | 0.034368 | 20190/587470 |
| TRUE | 37461 | 191737 | 0.163444 | 37461/229198 |
| Totals | 604741 | 211927 | 0.070593 | 57651/816668 |

\*\* Reported on validation data. \*\*

Confusion Matrix for F1-optimal threshold:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | false | true | Error | Rate |
| FALSE | 284897 | 9647 | 0.032752 | 9647/294544 |
| TRUE | 19541 | 95247 | 0.170236 | 19541/114788 |
| Totals | 304438 | 104894 | 0.071306 | 29188/409332 |

**Distributed Random Forest**

|  |  |  |
| --- | --- | --- |
|  | **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 8.00.22 PM.png** | |
| **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 8.00.37 PM.png** | | |
| **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 8.00.54 PM.png** | | **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 8.01.02 PM.png** |

Model Details:

==============

H2OBinomialModel: Distributed Random Forest

\*\* Reported on training data. \*\*

Confusion Matrix for F1-optimal threshold:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | FALSE | TRUE | Error | Rate |
| FALSE | 567603 | 19867 | 0.033818 | 19867/587470 |
| TRUE | 38713 | 190485 | 0.168906 | 38713/229198 |
| Totals | 606316 | 210352 | 0.07173 | 58580/816668 |

\*\* Reported on validation data. \*\*

Confusion Matrix for F1-optimal threshold:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | FALSE | TRUE | Error | Rate |
| FALSE | 285836 | 8708 | 0.029564 | 8708/294544 |
| TRUE | 19991 | 94797 | 0.174156 | 19991/114788 |
| Totals | 305827 | 103505 | 0.070112 | 28699/409332 |

**Generalized Linear Models**

|  |  |  |
| --- | --- | --- |
| **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 7.37.38 PM.png** | |  |
| **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 7.37.58 PM.png** | | |
| **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 7.39.27 PM.png** | **/Users/Heet/Desktop/Screen Shot 2016-07-19 at 7.39.19 PM.png** | |

H2OBinomialModel: Generalized Linear Model

\*\* Reported on training data. \*\*

Confusion Matrix for F1-optimal threshold:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | FALSE | TRUE | Error | Rate |
| FALSE | 569193 | 18277 | 0.031111 | 18277/587470 |
| TRUE | 41585 | 187613 | 0.181437 | 41585/229198 |
| Totals | 610778 | 205890 | 0.0733 | 59862/816668 |

\*\* Reported on validation data. \*\*

Confusion Matrix for F1-optimal threshold:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | FALSE | TRUE | Error | Rate |
| FALSE | 284554 | 9990 | 0.033917 | 9990/294544 |
| TRUE | 20222 | 94566 | 0.176168 | 20222/114788 |
| Totals | 304776 | 104556 | 0.073808 | 30212/409332 |