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| --- | --- | --- | --- |
|  | **Random Forest** | **Logistic Regression** | **Neural Network** |
| **n-gram 1** | bootstrap: false  criterion: gini  max\_depth: 1120  max\_features: 3595  min\_samples\_leaf: 46  min\_samples\_split: 7262 | solver: liblinear  penalty: l2  dual: 0  class\_weight: balanced  C: 0.196751 | tol: 0.006524  solver: adam  hidden\_layer\_sizes: 298  alpha: 0.0065998  activation: relu |
| **n-gram 1 (tfidf)** | bootstrap: false  criterion: entropy  max\_depth: 646  max\_features: 3096  min\_samples\_leaf: 103  min\_samples\_split: 2279 | solver: liblinear  penalty: l2  dual: 0  class\_weight: balanced  C: 3.208425 | tol: 0.0018538  solver: adam  hidden\_layer\_sizes: 128  alpha: 0.004652  activation: relu |
| **n-gram 1 (hashed)** | bootstrap: true  criterion: gini  max\_depth: 5312  max\_features: 6142  min\_samples\_leaf: 249  min\_samples\_split: 5151 | solver: liblinear  penalty: l2  dual: 0  class\_weight: balanced  C: 3.186873 | tol: 0.000156  solver: adam  hidden\_layer\_sizes: 167  alpha: 0.0065998  activation: relu |
| **n-gram 2** | bootstrap: false  criterion: gini  max\_depth: 4418  max\_features: 4496  min\_samples\_leaf: 173  min\_samples\_split: 3629 | solver: lbfgs  penalty: l2  dual: 0  class\_weight: None  C: 3.906311 | tol: 0.005605  solver: adam  hidden\_layer\_sizes: 241  alpha: 0.001542  activation: logistic |
| **n-gram 2 (tfidf)** | bootstrap: false  criterion: entropy  max\_depth: 1251  max\_features: 5586  min\_samples\_leaf: 289  min\_samples\_split: 1587 | solver: sag  penalty: l2  dual: 0  class\_weight: balanced  C: 1.130067 | tol: 0.001043  solver: lbfgs  hidden\_layer\_sizes: 156  alpha: 0.000597  activation: tanh |
| **n-gram 2 (hashed)** | bootstrap: false  criterion: entropy  max\_depth: 3279  max\_features: 7683  min\_samples\_leaf: 263  min\_samples\_split: 4406 | solver: lbfgs  penalty: l2  dual: 0  class\_weight: balanced  C: 0.513080 | tol: 0.006715  solver: adam  hidden\_layer\_sizes: 110  alpha: 0.0074729  activation: identity |
| **n-gram 3** | bootstrap: false  criterion: gini  max\_depth: 959  max\_features: 1451  min\_samples\_leaf: 110  min\_samples\_split: 1463 | solver: lbfgs  penalty: l2  dual: 0  class\_weight: balanced  C: 0.320353 | tol: 0.003346  solver: adam  hidden\_layer\_sizes: 161  alpha: 0.002585  activation: relu |
| **n-gram 3 (tfidf)** | bootstrap: false  criterion: gini  max\_depth: 1475  max\_features: 603  min\_samples\_leaf: 118  min\_samples\_split: 443 | solver: liblinear  penalty: l2  dual: 0  class\_weight: balanced  C: 0.379010 | tol: 0.003180  solver: adam  hidden\_layer\_sizes: 33  alpha: 0.006972  activation: tanh |
| **n-gram 3 (hashed)** | bootstrap: true  criterion: gini  max\_depth: 8754  max\_features: 6386  min\_samples\_leaf: 8356  min\_samples\_split: 8313 | solver: newton-cg  penalty: l2  dual: 0  class\_weight: balanced  C: 0.018505 | tol: 0.001587  solver: lbfgs  hidden\_layer\_sizes: 173  alpha: 0.005586  activation: relu |

For more information on the parameters, compare:

1. Random Forest: <http://scikit-learn.org/stable/modules/generated/sklearn.ensemble.RandomForestClassifier.html#sklearn.ensemble.RandomForestClassifier>
2. :Logistic Regression: <http://scikit-learn.org/stable/modules/generated/sklearn.linear_model.LogisticRegression.html#sklearn.linear_model.LogisticRegression>
3. Neural Network: <http://scikit-learn.org/stable/modules/generated/sklearn.neural_network.MLPClassifier.html#sklearn.neural_network.MLPClassifier>

All last fetched on February 16 2018.