```
 1 D:\Anaconda\python.exe D:/code/seq2vec/main.py
 2 D:\Anaconda\lib\site-packages\h5py\__init__.py:36:
   FutureWarning: Conversion of the second argument of
   issubdtype from `float` to `np.floating` is deprecated
   . In future, it will be treated as `np.float64 == np.
   dtype(float).type`.
 3   from ._conv import register_converters as
   _register_converters
 4 Using TensorFlow backend.
 5 D:\Anaconda\lib\site-packages\tensorflow\python\
   framework\dtypes.py:523: FutureWarning: Passing (type
   , 1) or '1type' as a synonym of type is deprecated; in
    a future version of numpy, it will be understood as (
   type, (1,)) / '(1,)type'.
 6   _np_qint8 = np.dtype([("qint8", np.int8, 1)])
 7 D:\Anaconda\lib\site-packages\tensorflow\python\
   framework\dtypes.py:524: FutureWarning: Passing (type
   , 1) or '1type' as a synonym of type is deprecated; in
    a future version of numpy, it will be understood as (
   type, (1,)) / '(1,)type'.
 8   _np_quint8 = np.dtype([("quint8", np.uint8, 1)])
 9 D:\Anaconda\lib\site-packages\tensorflow\python\
   framework\dtypes.py:525: FutureWarning: Passing (type
   , 1) or '1type' as a synonym of type is deprecated; in
    a future version of numpy, it will be understood as (
   type, (1,)) / '(1,)type'.
10   _np_qint16 = np.dtype([("qint16", np.int16, 1)])
11 D:\Anaconda\lib\site-packages\tensorflow\python\
   framework\dtypes.py:526: FutureWarning: Passing (type
   , 1) or '1type' as a synonym of type is deprecated; in
    a future version of numpy, it will be understood as (
   type, (1,)) / '(1,)type'.
12   _np_quint16 = np.dtype([("quint16", np.uint16, 1)])
13 D:\Anaconda\lib\site-packages\tensorflow\python\
   framework\dtypes.py:527: FutureWarning: Passing (type
   , 1) or '1type' as a synonym of type is deprecated; in
    a future version of numpy, it will be understood as (
   type, (1,)) / '(1,)type'.
14   _np_qint32 = np.dtype([("qint32", np.int32, 1)])
15 D:\Anaconda\lib\site-packages\tensorflow\python\
   framework\dtypes.py:532: FutureWarning: Passing (type
   , 1) or '1type' as a synonym of type is deprecated; in
    a future version of numpy, it will be understood as (
```

```
15 type, (1,)) / '(1,)type'.
16   np_resource = np.dtype([("resource", np.ubyte, 1)])
17 D:\Anaconda\lib\site-packages\sklearn\ensemble\
   weight_boosting.py:29: DeprecationWarning: numpy.core.
   umath_tests is an internal NumPy module and should not
    be imported. It will be removed in a future NumPy
   release.
18   from numpy.core.umath_tests import inner1d
19 WARNING:tensorflow:From D:\Anaconda\lib\site-packages\
   keras\backend\tensorflow_backend.py:1188: calling
   reduce_sum (from tensorflow.python.ops.math_ops) with
   keep_dims is deprecated and will be removed in a
   future version.
20 Instructions for updating:
21 keep_dims is deprecated, use keepdims instead
22 WARNING:tensorflow:From D:\Anaconda\lib\site-packages\
   keras\backend\tensorflow_backend.py:1290: calling
   reduce_mean (from tensorflow.python.ops.math_ops) with
    keep_dims is deprecated and will be removed in a
   future version.
23 Instructions for updating:
24 keep_dims is deprecated, use keepdims instead
25 RPI488 dataset
26 fold  0
27 SVM
28 0.8979591836734694 0.9534883720930233 0.
   8367346938775511 0.9591836734693877 0.8019532181238482
29 ----------------------------------------------------
   ----------------------------------------------------
   ----------------------------------------
30 AdaBoost
31 0.8469387755102041 0.9047619047619048 0.
   7755102040816326 0.9183673469387755 0.7010681840159741
32 ----------------------------------------------------
   ----------------------------------------------------
   ----------------------------------------
33 Random forest
34 0.9285714285714286 1.0 0.8571428571428571 1.0 0.
   8660254037844387
35 ----------------------------------------------------
   ----------------------------------------------------
   ----------------------------------------
36 fold  1
```

```
37 SVM
38 0.865979381443299 0.9069767441860465 0.8125 0.
   9183673469387755 0.735573560066312
39 ------------------------------------------------
   ------------------------------------------------
   ----------------------------------------
40 AdaBoost
41 0.8041237113402062 0.8372093023255814 0.75 0.
   8571428571428571 0.611052381486151
42 ------------------------------------------------
   ------------------------------------------------
   ----------------------------------------
43 Random forest
44 0.8762886597938144 0.9285714285714286 0.8125 0.
   9387755102040817 0.7580745221824061
45 ------------------------------------------------
   ------------------------------------------------
   ----------------------------------------
46 fold  2
47 SVM
48 0.8556701030927835 0.9473684210526315 0.75 0.
   9591836734693877 0.7263728173773318
49 ------------------------------------------------
   ------------------------------------------------
   ----------------------------------------
50 AdaBoost
51 0.8762886597938144 0.875 0.875 0.8775510204081632 0.
   7525510204081632
52 ------------------------------------------------
   ------------------------------------------------
   ----------------------------------------
53 Random forest
54 0.8865979381443299 0.9743589743589743 0.
   7916666666666666 0.9795918367346939 0.7864521856445373
55 ------------------------------------------------
   ------------------------------------------------
   ----------------------------------------
56 fold  3
57 SVM
58 0.8350515463917526 0.8478260869565217 0.8125 0.
   8571428571428571 0.6704986311113921
59 ------------------------------------------------
   ------------------------------------------------
```

```
59 ----------------------------------------
60 AdaBoost
61 0.8247422680412371 0.8163265306122449 0.
   8333333333333334 0.8163265306122449 0.
   6496598639455783
62 ----------------------------------------------------
   ----------------------------------------------------
   ----------------------------------------
63 Random forest
64 0.845360824742268 0.8666666666666667 0.8125 0.
   8775510204081632 0.6918181193845235
65 ----------------------------------------------------
   ----------------------------------------------------
   ----------------------------------------
66 fold  4
67 SVM
68 0.8762886597938144 0.9285714285714286 0.8125 0.
   9387755102040817 0.7580745221824061
69 ----------------------------------------------------
   ----------------------------------------------------
   ----------------------------------------
70 AdaBoost
71 0.7835051546391752 0.8292682926829268 0.
   7083333333333334 0.8571428571428571 0.
   5723306975953574
72 ----------------------------------------------------
   ----------------------------------------------------
   ----------------------------------------
73 Random forest
74 0.9175257731958762 0.9545454545454546 0.875 0.
   9591836734693877 0.837753153502666
75 ----------------------------------------------------
   ----------------------------------------------------
   ----------------------------------------
76 mean performance of svm using kmer feature
77 [0.86618977 0.91684621 0.80484694 0.92653061 0.
   73849455]
78 ----------------------------------------------------
   ----------------------------------------------------
   ----------------------------------------
79 mean performance of AdaBoost using kmer feature
80 <module 'numpy' from 'D:\\Anaconda\\lib\\site-
   packages\\numpy\\__init__.py'> [0.82711971 0.85251321
```

```
 0.78843537 0.86530612 0.65733243]
----------------------------------------------------------------------------------------------------
mean performance of Random forest using kmer feature
[0.89086892 0.9448285  0.8297619  0.95102041 0.78802468]
----------------------------------------------------------------------------------------------------

Process finished with exit code 0

```