```
1 /Users/pavankumar/Desktop/pythonProject1/.venv/bin/
   python /Users/pavankumar/Desktop/pythonProject1/
   scripts/train_model.py
 2
                           kmer_1
      qc_content
                  kmer_0
                                   kmer_2
                                                 kmer_62
     kmer_63
              sequence_length label
        0.288908
                             9038
 3 0
                    24401
                                     8085
                                                   11154
       27664
                        498903
                                    0
        0.284443
                    22547
                             5823
                                     9586
                                                    9070
 4 1
                        383504
       18692
                                    0
                    22244
                                     9417
 5 2
        0.286269
                             5831
                                                    8991
       18323
                        380632
                                    0
 6 3
        0.283988
                    16191
                             6750
                                     4319
                                                    6984
       20190
                        328859
                                    0
        0.281325
                    13170
                             3103
                                     5583
                                                    5464
 7 4
       11395
                        222348
                                    0
 9 [5 rows x 67 columns]
10 Class distribution after oversampling: Counter({0:
   12, 1: 12})
11 Accuracy: 1.0
12 Classification Report:
13
                   precision
                                recall f1-score
   support
14
15
                       1.00
                                 1.00
                                            1.00
              0
            3
16
              1
                       1.00
                                 1.00
                                            1.00
            2
17
                                            1.00
18
       accuracy
            5
19
                                            1.00
      macro avg
                       1.00
                                 1.00
            5
20 weighted avg
                       1.00
                                 1.00
                                            1.00
            5
21
22 Model saved to /Users/pavankumar/Desktop/
   pythonProject1/sequence_ml_project/models/
   random_forest_model.pkl
23
24 Process finished with exit code 0
```