Abstract

Approximate string matching has been used in many applications such as, text retrieval, spell checker and DNA sequence matching in computational biology. In this paper, we implemented bit-vector algorithm using MATLAB for approximate string matching on Rhodopsin protein sequence of class Aves. Our experiments on real data of Rhodopsin protein sequences demonstrate that the algorithm can work as expected. The experiment results shows that the Rhodopsin protein sequence of the species in same genus is more approximately match each other compared to the species from different genus in the same family, Furthermore, for the species from different genus in the same family, its Rhodopsin protein sequence is more approximately match each other compared to the species from different family in the same order.

References

Implementation of Bit-Vector Algorithm for Approximate String Matching on Rhodopsin Protein Sequence


Index Terms

Computer Science
Artificial Intelligence
Keywords

Bit-vector  DNA  Rhodopsin  string matching