Abstract

Nearest neighbour is a classification algorithm that learns by comparing each new case to previous examples. In the nearest neighbour algorithm, all instances are generally stored in memory during training. When a new query instance is received the memory is searched to find the instance that matches the query instance most closely. The main problem is computationally expensive classifiers since Nearest neighbour save all training instances.
NNGE extends on nearest neighbour by introducing exemplar. The purpose uses exemplar is to reduced classification time without sacrificing akurasi.
IB3 applies an akurasi filter on instances and does not use an instance in classifying decisions until it has proved itself to be worthy of being used in the decision making process. IB3 uses filter to reduced classification time.
NNGEs is variant of NNGE that integrate a statistical approach adopted from IB3. NNGEs is predicted will perform better than NNGE and IB3.
This paper deals with the research to know the best classification algorithm from NNGE, IB3 and NNGEs. The outcome of the research shows that the NNGEs indeed have better akurasi in all dataset. NNGE and IB3 have an acceptable performance in specific dataset. IB3 has the fastest time for building model and classifying data.

Keywords: Nearest Neighbor, NNGE, IB3, NNGEs