

Data Mining

Clustering II – Agglomerative Hierarchical Algorithm (Part B)

Dr. Jason T.L. Wang, Professor
Department of Computer Science
New Jersey Institute of Technology

/



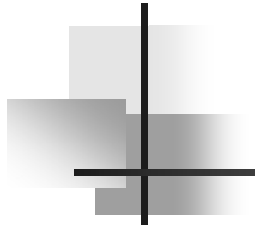
Outlier Discovery

- What are outliers?
 - Objects that are considerably dissimilar from the remainder of the data
- Applications:
 - Credit card fraud detection
 - Telecom fraud detection
 - A newly formed cancer protein



Outlier Discovery Techniques

- Distance-based outlier: A $DB(p, D)$ -outlier is an object O in a dataset T such that at least a fraction p of the objects in T lie at a distance greater than D from O .
- Algorithms for mining distance-based outliers
 - Index-based algorithm
 - Nested-loop algorithm



End of Agglomerative Hierarchical Clustering Algorithm Module (Part B)