

Your Discovery Journey → Formal Theory

YOUR DISCOVERIES

ALGORITHMS

FORMAL THEORY

Dots close together
belong in groups

K-means

Clustering:
Unsupervised Learning

Different ways to
measure 'close'

DBSCAN

Distance Metrics:
Euclidean, Manhattan

Groups have
center points

Hierarchical

Centroids:
Cluster Representatives

Some dots don't
fit any group

GMM

Outliers:
Anomaly Detection

Need to simplify
1000 → 20 → 5

PCA

Dimensionality
Reduction

Innovation Pipeline: Data → Patterns → Insights → Action