Optimal decision tree pipeline: proof of concept.

Phases:

1) Maximal hyperbox clustering

2) Minimal cutset

3) Minimal decision tree

Here phases 1 and 2. Five testsets: four tiny artificial (few points, 2 dimensions), fifth is iris dataset (https://archive.ics.uci.edu/dataset/53/iris), attributes only Sepal Width and Petal Length, well known to separate iris setosa from the other two species (trivial).

Test1

A graph with numbers and dots

Description automatically generated

A diagram with red lines and dots

Description automatically generated

A graph with colored lines and dots

Description automatically generated

Test2

A graph with numbers and dots

Description automatically generated

A red rectangle with black dots and yellow dots

Description automatically generated

A graph with numbers and dots

Description automatically generated

Test 3

A graph with numbers and dots

Description automatically generated

A red squares with yellow and purple dots

Description automatically generated

A graph with colored lines and dots

Description automatically generated

Test 4

A graph with numbers and dots

Description automatically generated

A screenshot of a graph

Description automatically generated

A graph with colored lines and dots

Description automatically generated

Iris, dimensions: SepalWidthCm, PetalLengthCm

A graph with numbers and dots

Description automatically generated

A graph with numbers and dots

Description automatically generated

A graph showing numbers and points

Description automatically generated