DV

About

This application displays n-Dimensional data in 2D using GLC-L coordinates. For better class separation, linear discriminant analysis is used to get the optimal angles and threshold for a visualization. Adjustments to the angles and threshold can be done by using the related sliders. Graphs produced by this program can be panned, zoomed in/out, and scaled. Graph order can be rearranged. Analytics generated by this program include the "All Data," "Data Without Overlap," "Overlap Data," and "Worst Case," confusion matrices as well as k-fold cross validation.

Dataset Information

- Dataset must be in .csv format
- Dataset must include a reader row
- If there is an ID column, it must be first,
- If there is a class column it must be last
- Dataset features besides “class” must be numeric

Example Dataset

ID	feature1	feature2	feature3	class
1	5	1	1	dog
2	5	4	1	dog
3	3	1	1	dog
4	6	8	1	cat
5	4	1	1	cat
6	8	10	1	cat
7	1	1	1	bird
8	2	1	1	bird
9	2	1	5	bird

Requirements

- Windows 10

Install and Run

1. Download DV.zip
2. Unzip DV.zip
3. Run “DV.exe”
4. Follow instruction in “Run Instructions.pdf”

Dataset Links

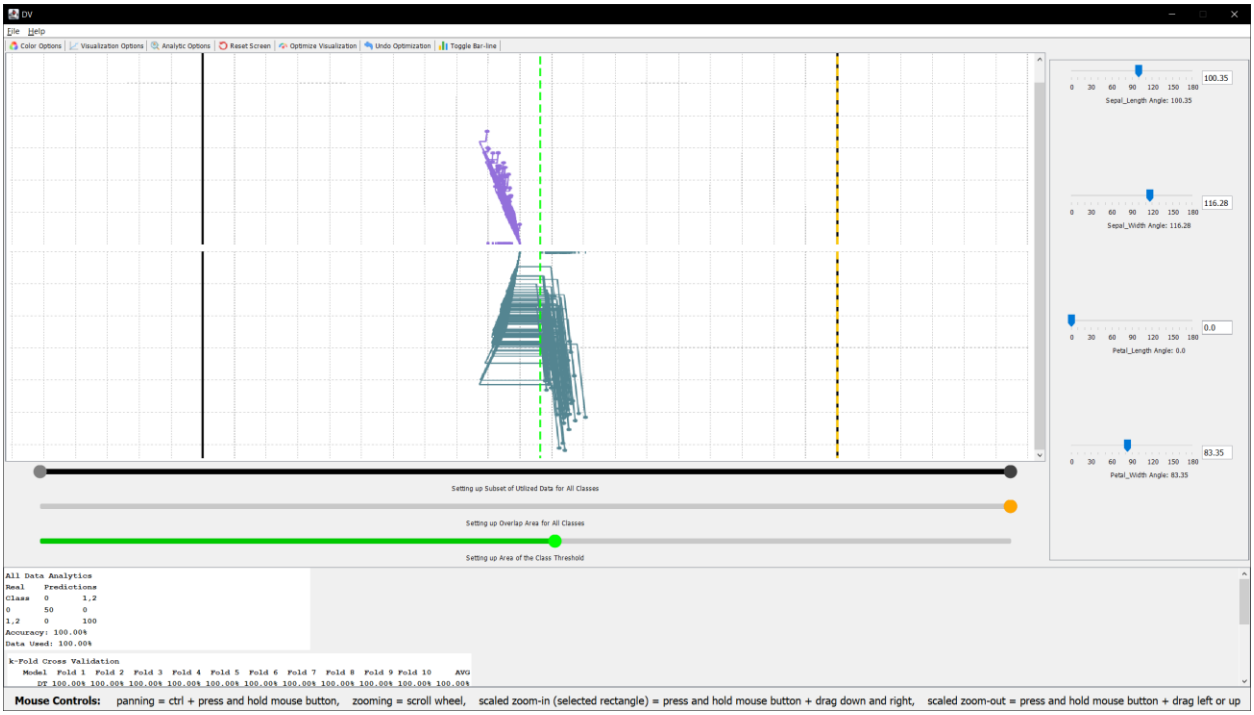
Iris dataset

Breast Cancer Wisconsin (Original) dataset

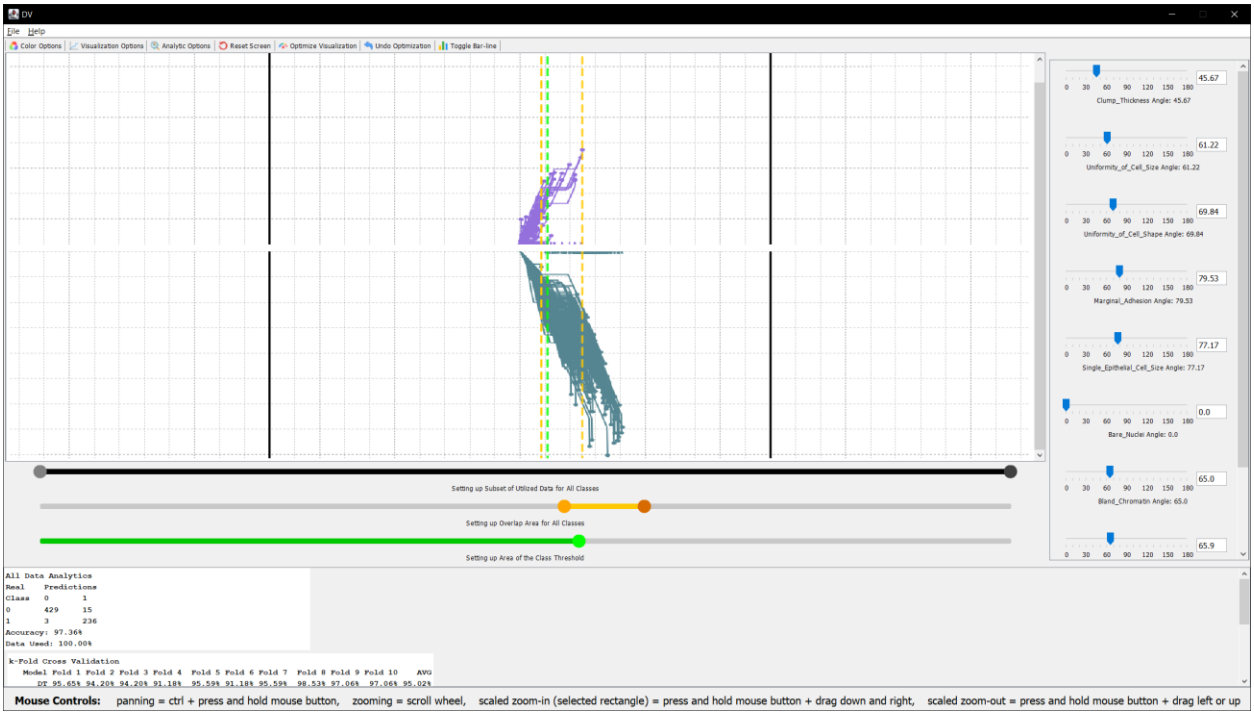
Seeds dataset

Visualizations

Iris dataset: Iris-Setosa (upper graph) vs Iris-Versicolor and Iris-Virginica (lower graph)



Breast Cancer Wisconsin: Benign (upper graph) vs malignant (lower graph)



Seeds: class 1 (upper graph) vs classes 2 and 3 (lower graph)