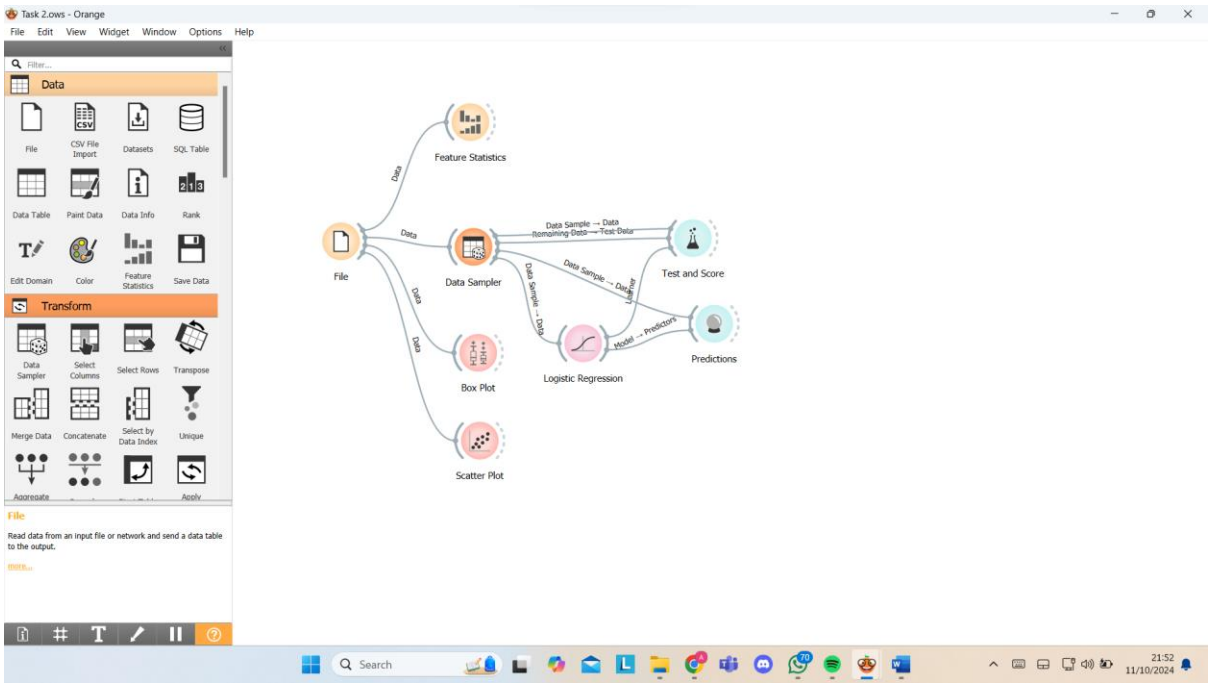
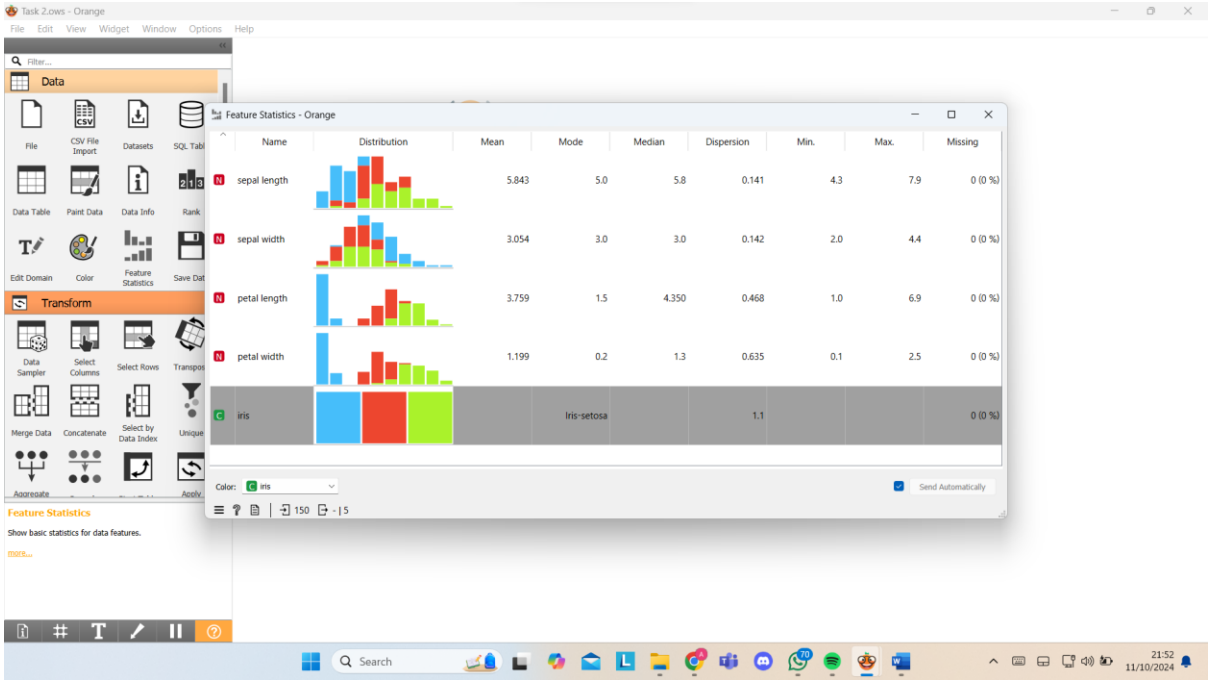
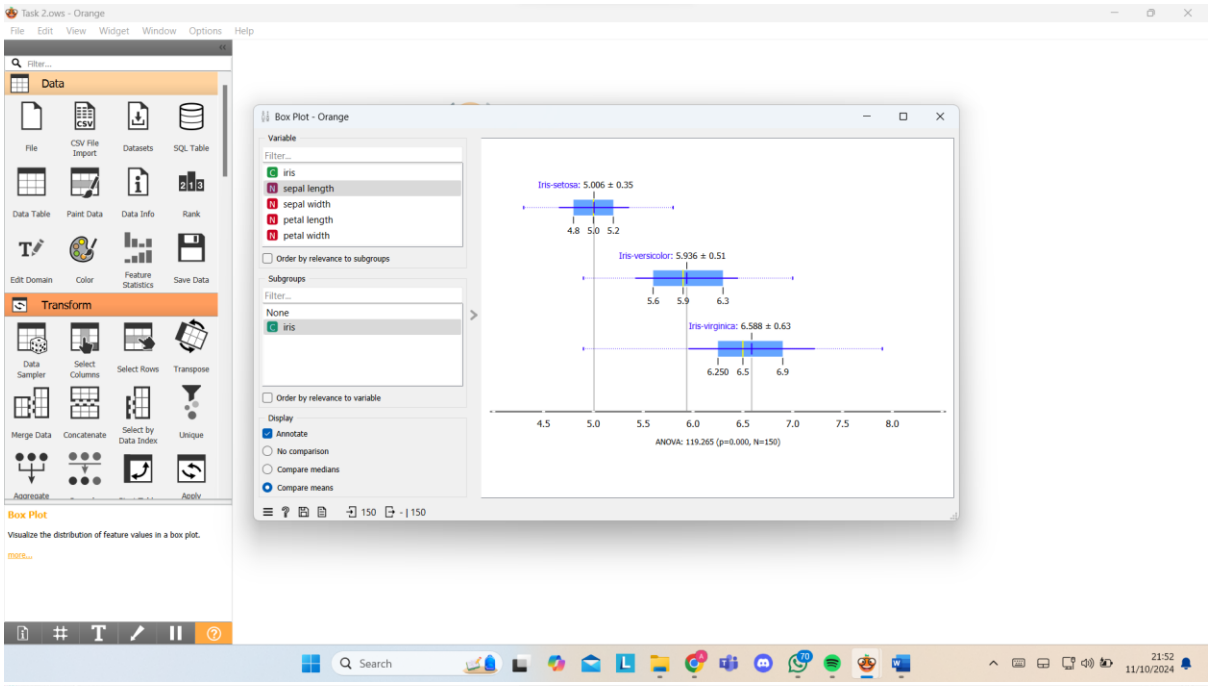
Andreas Hasiholan Sinaga

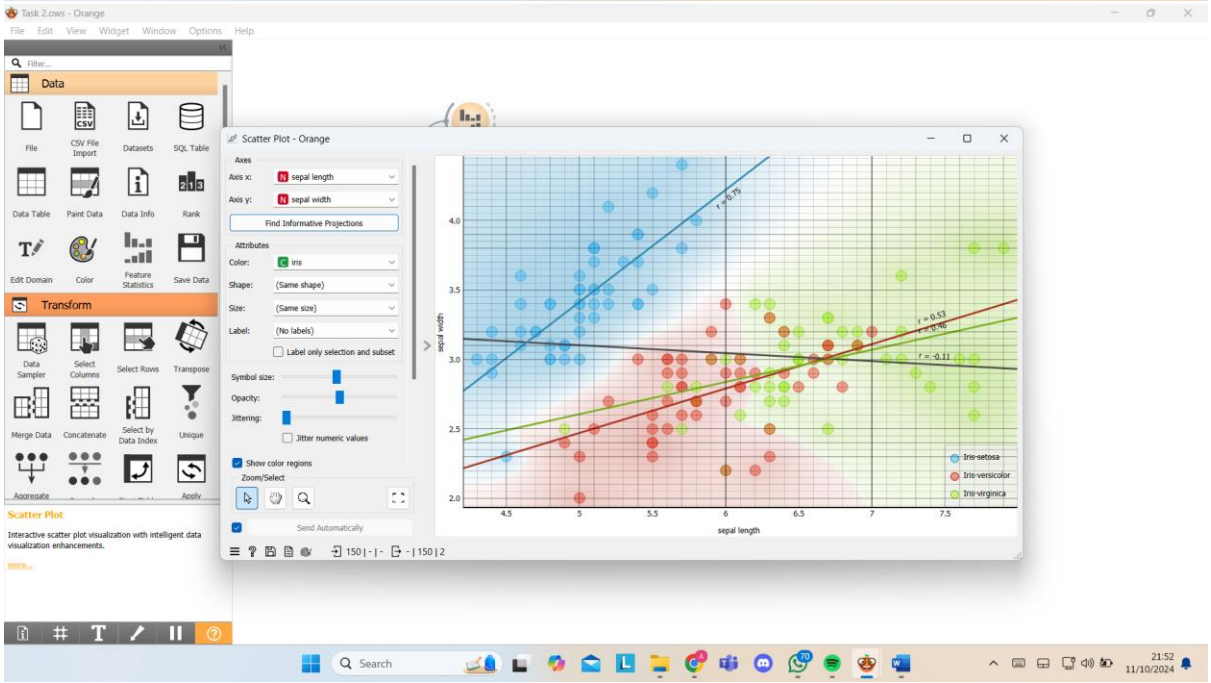
1103213033

Task 2






Task 2.ows - Orange
File Edit View Widget Window Options Help
Data
File
CSV File Import
Datasets
SQL Table
Data Table
Paint Data
Data Info
Rank
Edit Domain
Color
Feature Statistics
Save Data
Transform
Data Sampler
Select Columns
Select Rows
Transpose
Merge Data
Concatenate
Select by Data Index
Unique
Aggregate
Apply
Box Plot
Visualize the distribution of feature values in a box plot.
more...
Box Plot - Orange
Variable
Filter...
iris
sepal length
sepal width
petal length
petal width
Order by relevance to subgroups
Subgroups
Filter...
None
iris
Order by relevance to variable
Display
Annotate
No comparison
Compare medians
Compare means
Iris-setosa: 5.006 ± 0.35
4.8 5.0 5.2
Iris-versicolor: 5.936 ± 0.51
5.6 5.9 6.3
Iris-virginica: 6.588 ± 0.63
6.250 6.5 6.9
4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0
ANOVA: 119.265 (p=0.000, N=150)
150 - | 150
Search
21:52
11/10/2024


Task 2.ows - Orange
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Data
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SQL Table
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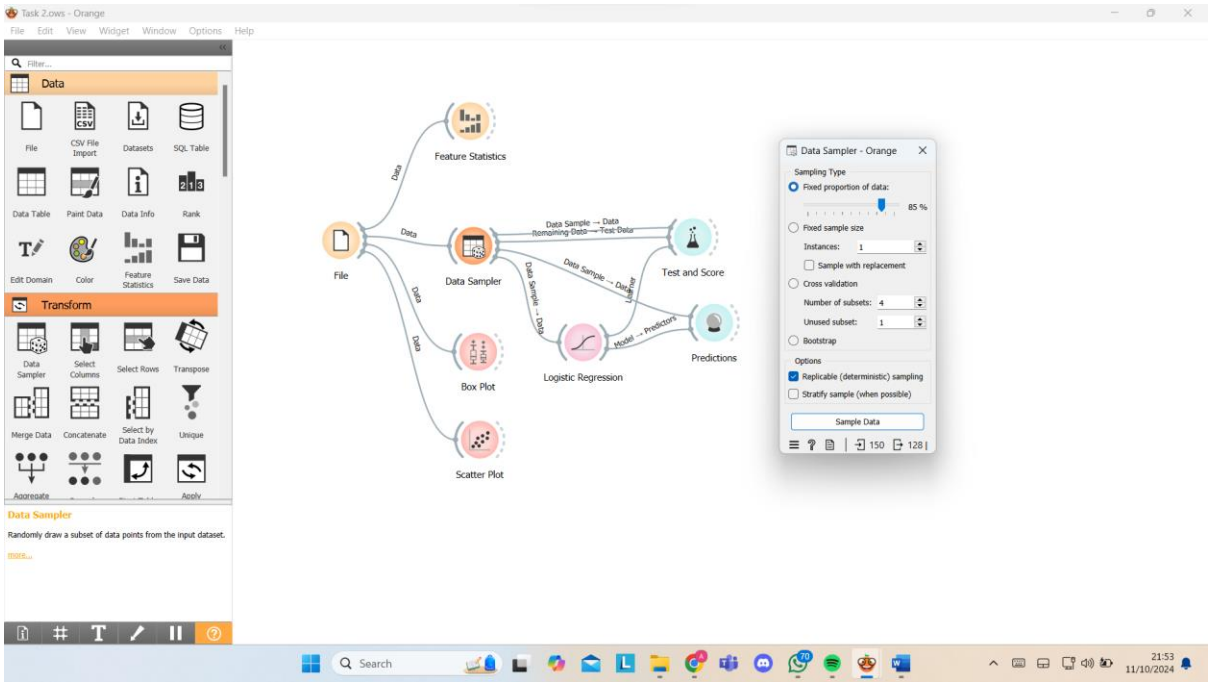
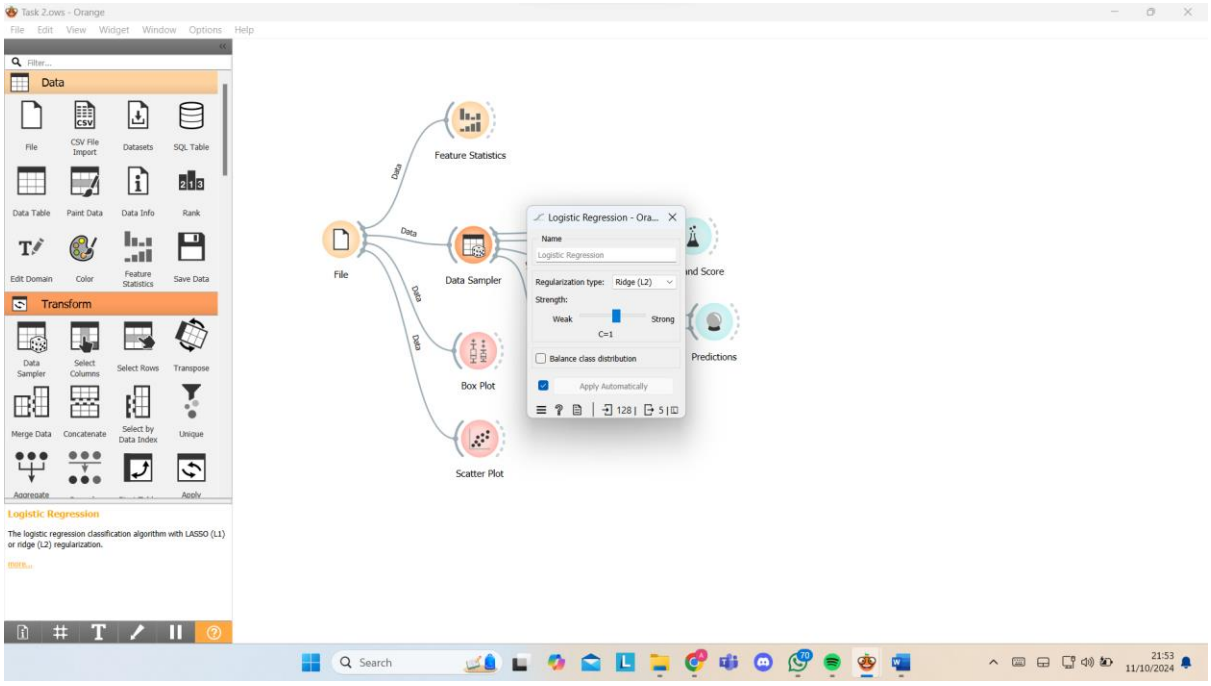
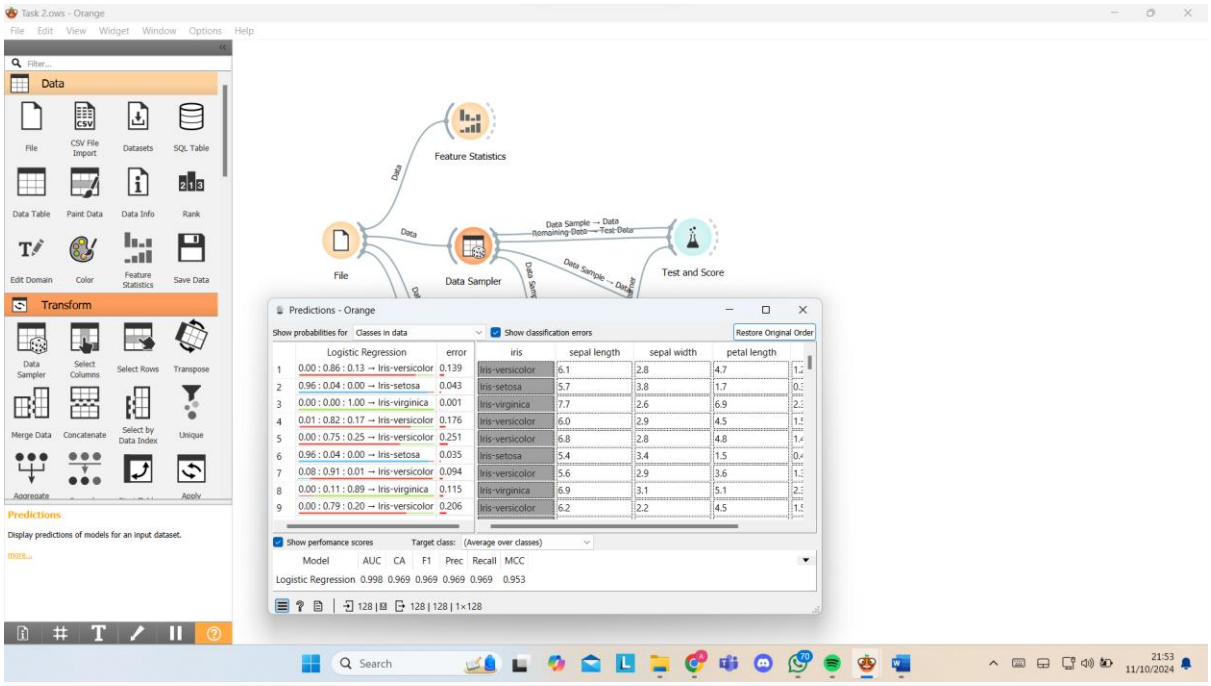
Feature Statistics
Save Data
Transform
Data Sampler
Select Columns
Select Rows
Transpose
Merge Data
Concatenate
Select by Data Index
Unique
Aggregate
Apply
Scatter Plot
Interactive scatter plot visualization with intelligent data visualization enhancements.
more...
Scatter Plot - Orange
Axes
Axis x: sepal length
Axis y: sepal width
Find Informative Projections
Attributes
Color: iris
Shape: (Same shape)
Size: (Same size)
Label: (No labels)
Label only selection and subset
Symbol size:
Opacity:
Jittering:
Jitter numeric values
Show color regions
Zoom/Select
Send Automatically
sepal width
sepal length
r = 0.53
r = -0.11
Iris-setosa
Iris-versicolor
Iris-virginica
150 | - | - 150 | 2
Search
21:52
11/10/2024


Task 2.ows - Orange
File Edit View Widget Window Options Help
Data
File
CSV File Import
Datasets
SQL Table
Data Table
Paint Data
Data Info
Rank
Edit Domain
Color
Feature Statistics
Save Data
Transform
Data Sampler
Select Columns
Select Rows
Transpose
Merge Data
Concatenate
Select by Data Index
Unique
Aggregate
Apply
Data Sampler
Randomly draw a subset of data points from the input dataset.
more...
Feature Statistics
Data
File
Data Sampler
Data Sample → Data
Remaining Data → Test Data
Test and Score
Box Plot
Logistic Regression
Model → Predictors
Predictions
Scatter Plot
Data Sampler - Orange
Sampling Type
Fixed proportion of data:
85 %
Fixed sample size
Instances: 1
Sample with replacement
Cross validation
Number of subsets: 4
Unused subset: 1
Bootstrap
Options
Replicable (deterministic) sampling
Stratify sample (when possible)
Sample Data
150
128
Search
21:53
11/10/2024


Task 2.ows - Orange
File Edit View Widget Window Options Help
Data
File
CSV File Import
Datasets
SQL Table
Data Table
Paint Data
Data Info
Rank
Edit Domain
Color
Feature Statistics
Save Data
Transform
Data Sampler
Select Columns
Select Rows
Transpose
Merge Data
Concatenate
Select by Data Index
Unique
Aggregate
Apply
Logistic Regression
The logistic regression classification algorithm with LASSO (L1) or ridge (L2) regularization.
more...
Feature Statistics
Data
File
Data Sampler
Box Plot
Scatter Plot
Logistic Regression - Ora...
Name
Logistic Regression
Regularization type: Ridge (L2)
Strength:
Weak
Strong
C=1
Balance class distribution
Apply Automatically
128
5
Predictions
Search
21:53
11/10/2024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Data
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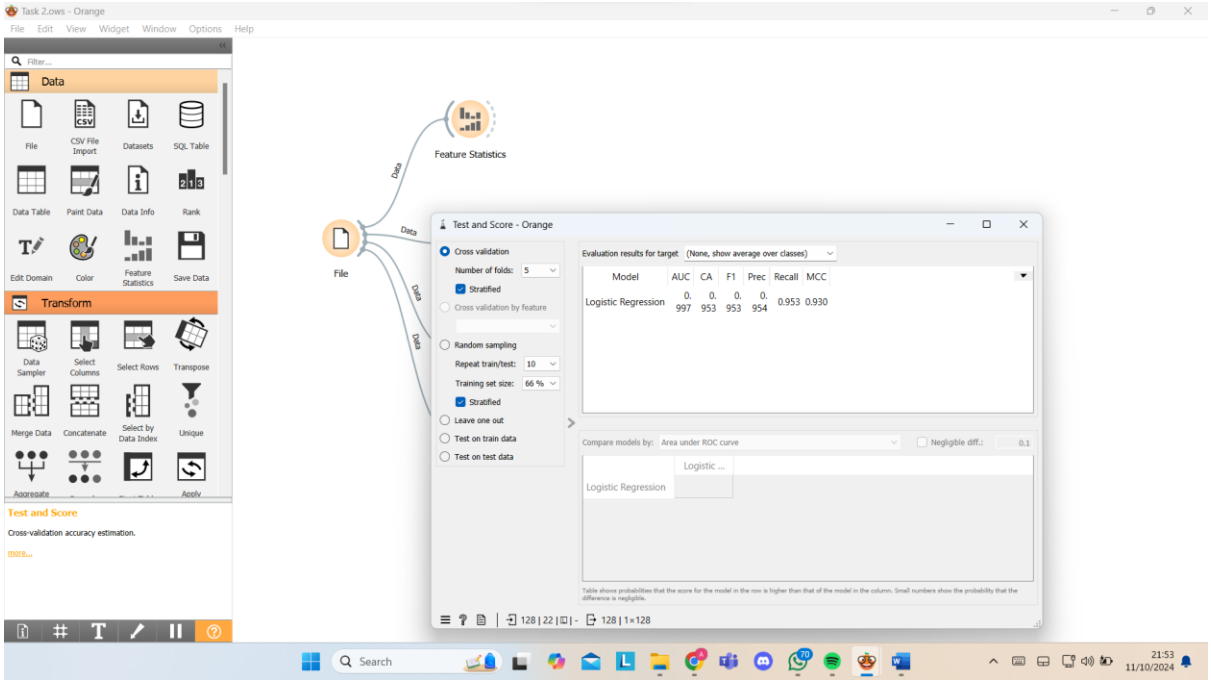
Edit Domain
Color
Feature Statistics
Save Data
Transform
Data Sampler
Select Columns
Select Rows
Transpose
Merge Data
Concatenate
Select by Data Index
Unique
Aggregate
Apply
Predictions
Display predictions of models for an input dataset.
more...
Feature Statistics
File
Data Sampler
Test and Score
Data
Data Sample → Data
Remaining Data → Test Data
Predictions - Orange
Show probabilities for
Classes in data
Show classification errors
Restore Original Order
Logistic Regression
error
iris
sepal length
sepal width
petal length
0.00 : 0.86 : 0.13 → Iris-versicolor 0.139 Iris-versicolor 6.1 2.8 4.7
0.96 : 0.04 : 0.00 → Iris-setosa 0.043 Iris-setosa 5.7 3.8 1.7
0.00 : 0.00 : 1.00 → Iris-virginica 0.001 Iris-virginica 7.7 2.6 6.9
0.01 : 0.82 : 0.17 → Iris-versicolor 0.176 Iris-versicolor 6.0 2.9 4.5
0.00 : 0.75 : 0.25 → Iris-versicolor 0.251 Iris-versicolor 6.8 2.8 4.8
0.96 : 0.04 : 0.00 → Iris-setosa 0.035 Iris-setosa 5.4 3.4 1.5
0.08 : 0.91 : 0.01 → Iris-versicolor 0.094 Iris-versicolor 5.6 2.9 3.6
0.00 : 0.11 : 0.89 → Iris-virginica 0.115 Iris-virginica 6.9 3.1 5.1
0.00 : 0.79 : 0.20 → Iris-versicolor 0.206 Iris-versicolor 6.2 2.2 4.5
Show perfomance scores
Target class: (Average over classes)
Model AUC CA F1 Prec Recall MCC
Logistic Regression 0.998 0.969 0.969 0.969 0.969 0.953
128 | 128 | 128 | 1×128
Search
21:53
11/10/2024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Data Sampler
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Select Rows
Transpose
Merge Data
Concatenate
Select by Data Index
Unique
Aggregate
Apply
Test and Score
Cross-validation accuracy estimation.
more...
Feature Statistics
File
Test and Score - Orange
Cross validation
Number of folds: 5
Stratified
Cross validation by feature
Random sampling
Repeat train/test: 10
Training set size: 66 %
Stratified
Leave one out
Test on train data
Test on test data
Evaluation results for target (None, show average over classes)
Model AUC CA F1 Prec Recall MCC
Logistic Regression 0.997 0.953 0.953 0.954 0.953 0.930
Compare models by: Area under ROC curve
Negligible diff.: 0.1
Logistic ...
Logistic Regression
128 | 22 | - | 128 | 1×128
Search
21:53
11/10/2024