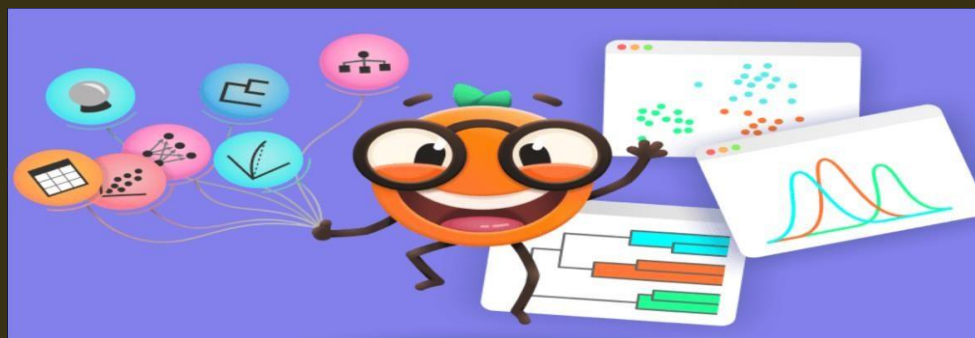


재활용품 분류하기



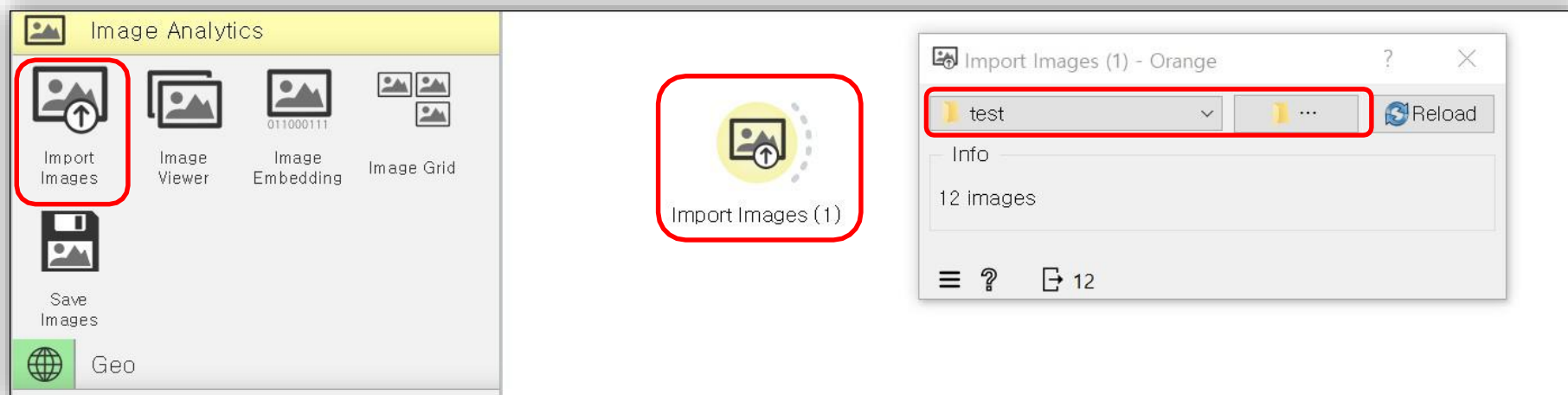
소프트웨어융합대학원
진혜진

■ 성능 결과 확인하기

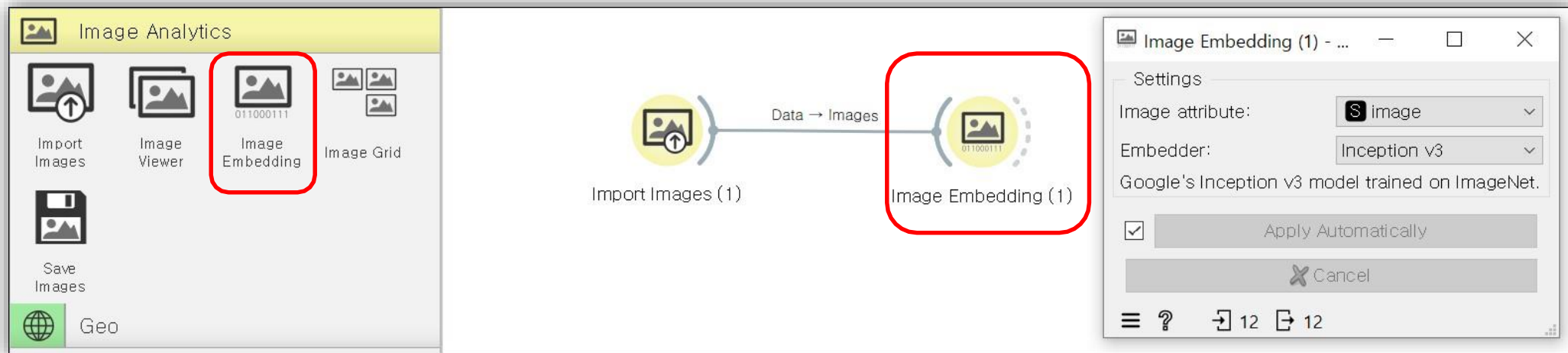
- 테스트 데이터에 인공지능 모델을 적용하여 결과를 예측하는 데 활용한 다.

■ 테스트 데이터 불러오기

- Image Analytics 카테고리의 [Import Image] 위젯을 새로 가져와 test 폴더를 불러온다.



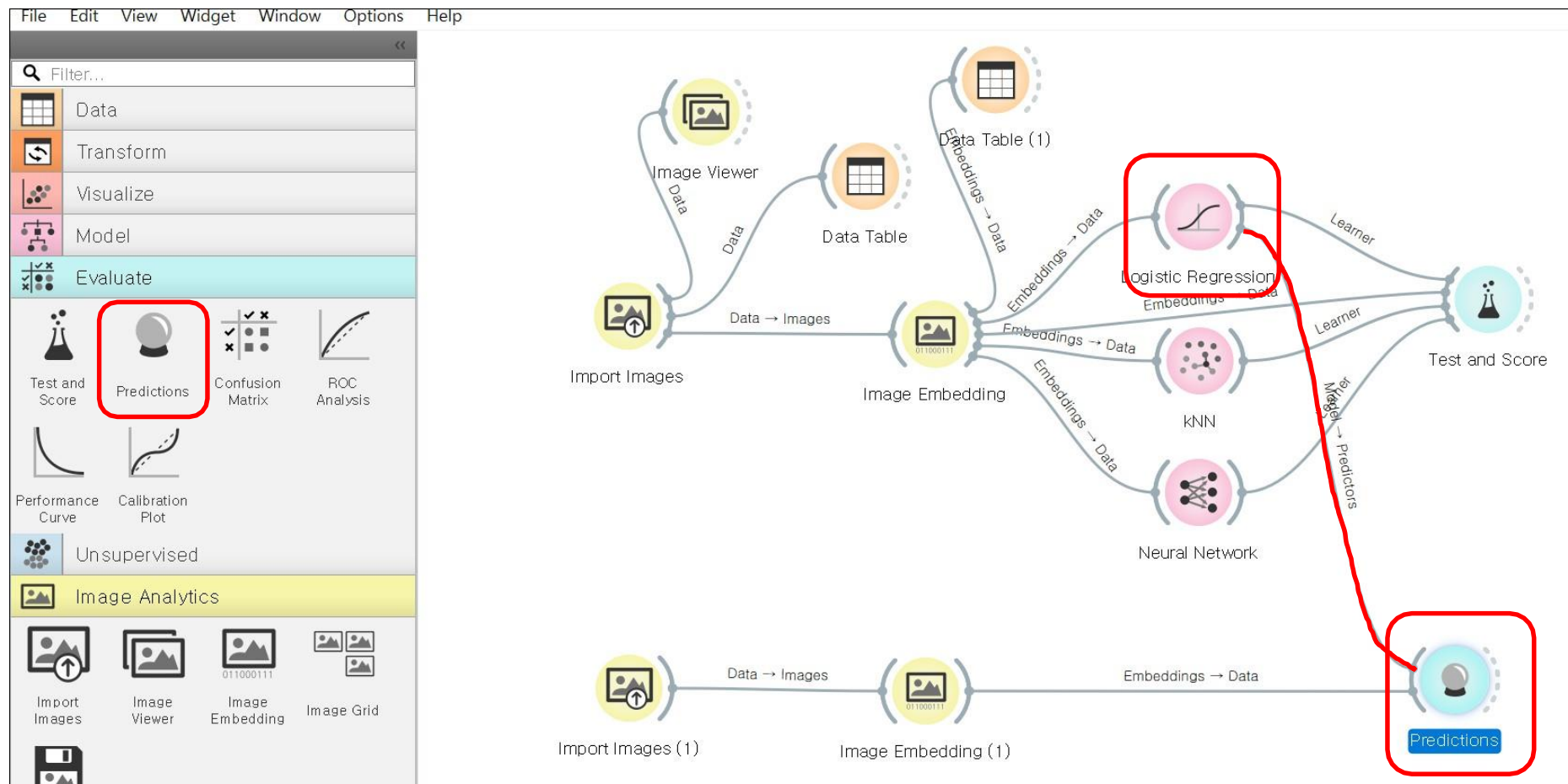
- test 폴더의 이미지를 임베딩 처리한다.



The screenshot displays the 'Image Analytics' application interface. On the left, a sidebar contains icons for 'Import Images', 'Image Viewer', 'Image Embedding' (highlighted with a red box), and 'Image Grid'. Below these is a 'Save Images' icon and a 'Geo' button. The main workspace shows a workflow: 'Import Images (1)' connected to 'Image Embedding (1)' (also highlighted with a red box) via a 'Data → Images' link. A settings dialog for 'Image Embedding (1)' is open on the right, showing 'Image attribute' set to 'image', 'Embedder' set to 'Inception v3', and a checked 'Apply Automatically' option. The dialog also includes a 'Cancel' button and a status bar at the bottom showing '12' images.

■ 분류하기

- Evaluate 카테고리의 [Predictions] 위젯을 가져와 3개의 모델 중 성능이 우수했던 [Logistic Regression] 위젯에 연결한다.



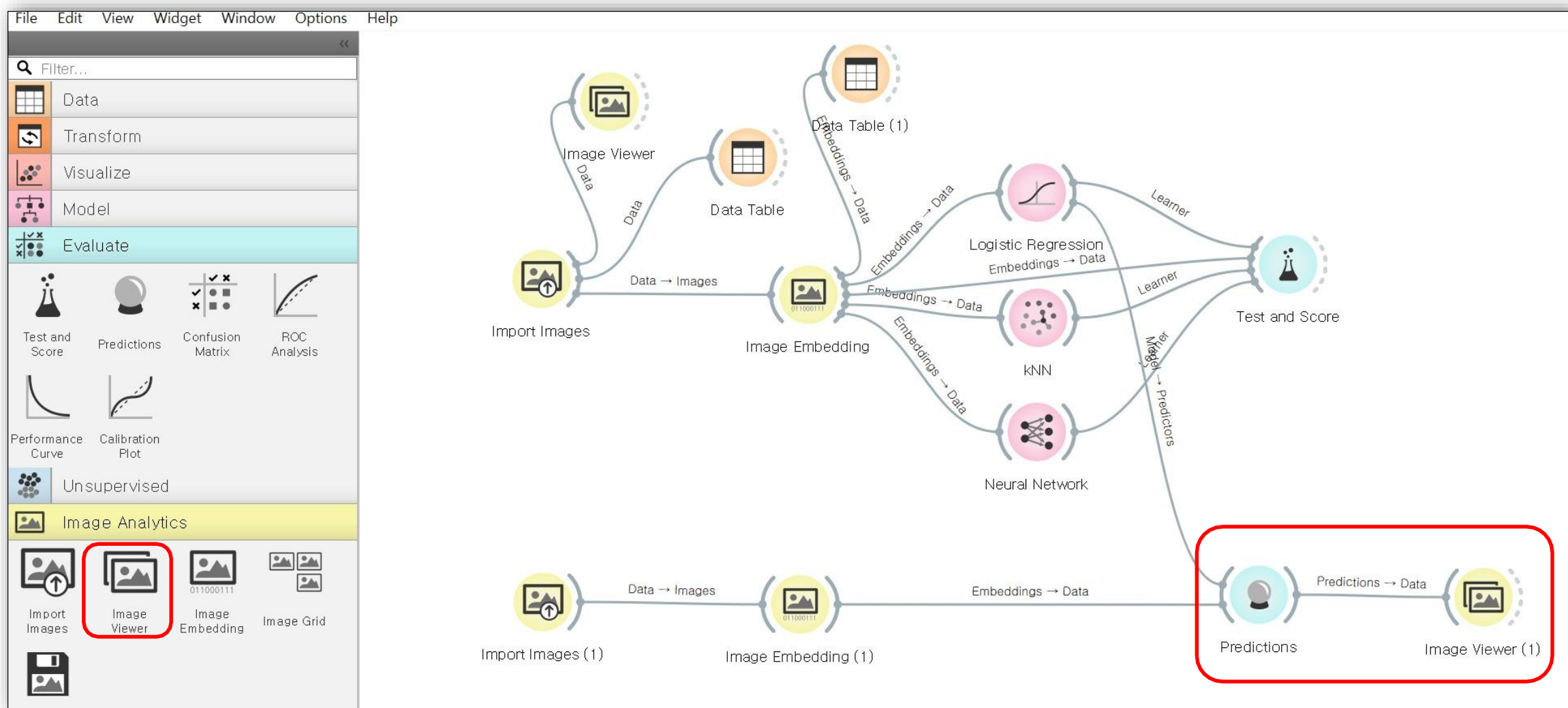
Predictions - Orange

Show probabilities for (None) Restore Original Order

	Logistic Regression	image name	image	size	width	height	n0	n1	
1	can	IMG_8366	IMG_8366.jpeg	1493283	3024	3024	0.354397	0.462014	0.08
2	plastic	IMG_8381	IMG_8381.jpeg	1472250	3024	3024	0.269615	0.345437	0.06
3	paper	IMG_8423	IMG_8423.jpeg	1784733	3024	4032	0.139625	0.547557	0.44
4	plastic	IMG_8437	IMG_8437.jpeg	1467825	3024	3024	0.258655	0.00469802	0.08
5	plastic_bag	IMG_8541	IMG_8541.jpeg	2593757	3024	4032	0.187784	0.405681	0.18
6	glass	IMG_8594	IMG_8594.jpeg	1973634	3024	4032	0.0603057	0.266509	0.59
7	glass	IMG_8620	IMG_8620.jpeg	1686890	3024	4032	0.0128326	0.228278	0.49
8	styrofoam	IMG_8702	IMG_8702.jpeg	2670914	3024	4032	0.145321	0.5114	0.04
9	can	IMG_8712	IMG_8712.jpeg	2337683	3024	4032	0.112863	0.341484	0.07
10	paper	IMG_8776	IMG_8776.jpeg	3899376	4032	3024	0.356856	0.350588	0.47
11	plastic_bag	IMG_8803	IMG_8803.jpeg	1652189	3024	4032	0.140757	0.203165	0.07
12	styrofoam	IMG_8875	IMG_8875.jpeg	2292790	3024	4032	0.48736	0.216199	0.19

12 | 1

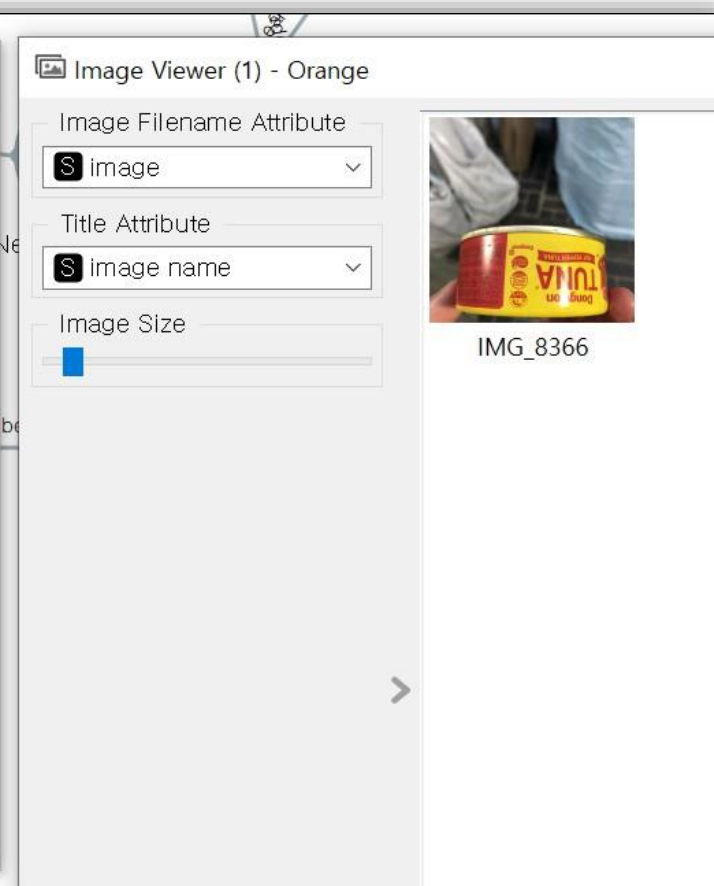
- Image Viewer 창에서 예측한 결과를 확인하기 위해 [Image Viewer] 위젯을 새로 가져와 [Predictions] 위젯에 연결한다.



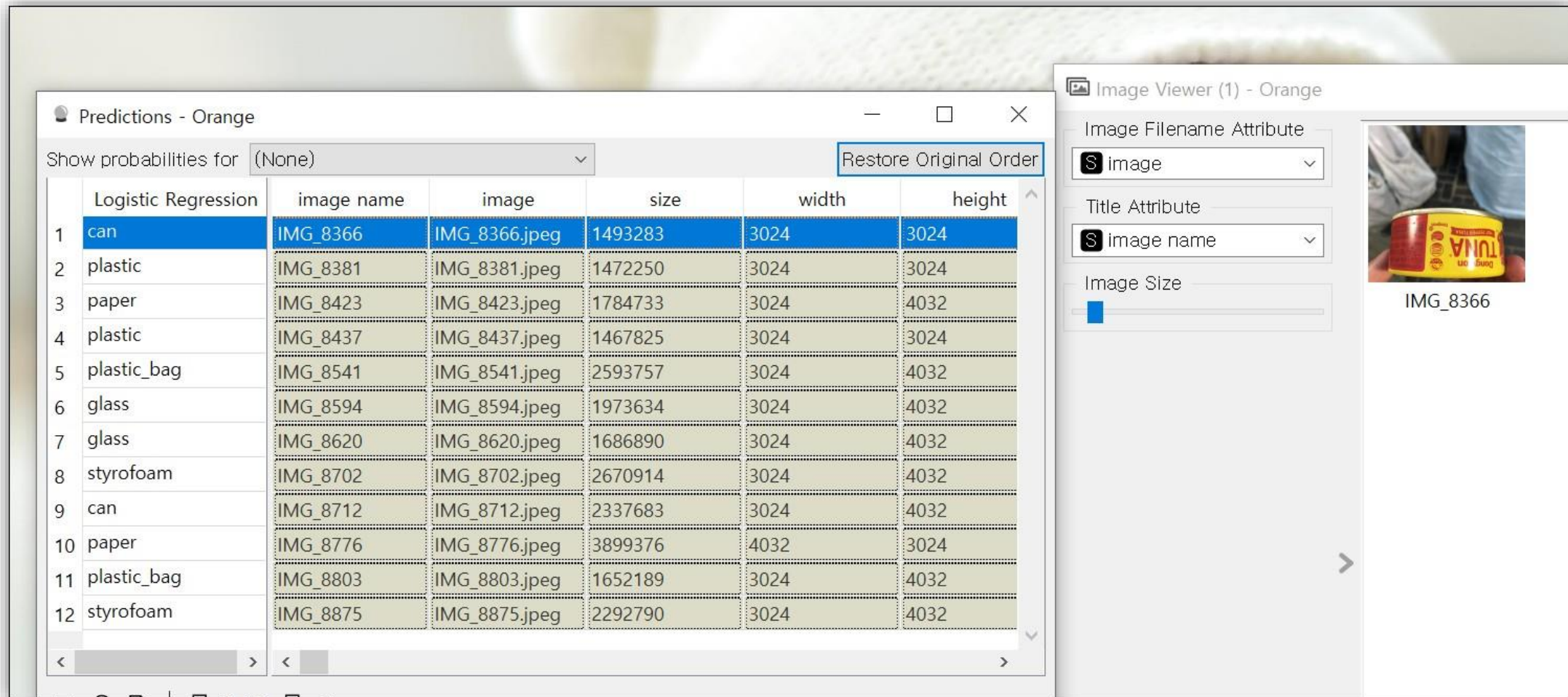
Predictions - Orange

Show probabilities for (None) Restore Original Order

	Logistic Regression	image name	image	size	width	height
1	can	IMG_8366	IMG_8366.jpeg	1493283	3024	3024
2	plastic	IMG_8381	IMG_8381.jpeg	1472250	3024	3024
3	paper	IMG_8423	IMG_8423.jpeg	1784733	3024	4032
4	plastic	IMG_8437	IMG_8437.jpeg	1467825	3024	3024
5	plastic_bag	IMG_8541	IMG_8541.jpeg	2593757	3024	4032
6	glass	IMG_8594	IMG_8594.jpeg	1973634	3024	4032
7	glass	IMG_8620	IMG_8620.jpeg	1686890	3024	4032
8	styrofoam	IMG_8702	IMG_8702.jpeg	2670914	3024	4032
9	can	IMG_8712	IMG_8712.jpeg	2337683	3024	4032
10	paper	IMG_8776	IMG_8776.jpeg	3899376	4032	3024
11	plastic_bag	IMG_8803	IMG_8803.jpeg	1652189	3024	4032
12	styrofoam	IMG_8875	IMG_8875.jpeg	2292790	3024	4032



- Predictions 창과 Image Viewer창을 나란히 두고 분류 결과를 확인한다.



The screenshot displays the Orange data mining software interface. The 'Predictions - Orange' window is on the left, showing a table of classification results for 12 images. The 'Image Viewer (1) - Orange' window is on the right, displaying the image 'IMG_8366' which is a can of tuna.

Predictions - Orange

Show probabilities for: (None) Restore Original Order

	Logistic Regression	image name	image	size	width	height
1	can	IMG_8366	IMG_8366.jpeg	1493283	3024	3024
2	plastic	IMG_8381	IMG_8381.jpeg	1472250	3024	3024
3	paper	IMG_8423	IMG_8423.jpeg	1784733	3024	4032
4	plastic	IMG_8437	IMG_8437.jpeg	1467825	3024	3024
5	plastic_bag	IMG_8541	IMG_8541.jpeg	2593757	3024	4032
6	glass	IMG_8594	IMG_8594.jpeg	1973634	3024	4032
7	glass	IMG_8620	IMG_8620.jpeg	1686890	3024	4032
8	styrofoam	IMG_8702	IMG_8702.jpeg	2670914	3024	4032
9	can	IMG_8712	IMG_8712.jpeg	2337683	3024	4032
10	paper	IMG_8776	IMG_8776.jpeg	3899376	4032	3024
11	plastic_bag	IMG_8803	IMG_8803.jpeg	1652189	3024	4032
12	styrofoam	IMG_8875	IMG_8875.jpeg	2292790	3024	4032

Image Viewer (1) - Orange

Image Filename Attribute: S image

Title Attribute: S image name

Image Size: [Slider]

IMG_8366

Predictions - Orange

Show probabilities for (None) Restore Original Order


	Logistic Regression	image name	image	size	width	height
1	can	IMG_8366	IMG_8366.jpeg	1493283	3024	3024
2	plastic	IMG_8381	IMG_8381.jpeg	1472250	3024	3024
3	paper	IMG_8423	IMG_8423.jpeg	1784733	3024	4032
4	plastic	IMG_8437	IMG_8437.jpeg	1467825	3024	3024
5	plastic_bag	IMG_8541	IMG_8541.jpeg	2593757	3024	4032
6	glass	IMG_8594	IMG_8594.jpeg	1973634	3024	4032
7	glass	IMG_8620	IMG_8620.jpeg	1686890	3024	4032
8	styrofoam	IMG_8702	IMG_8702.jpeg	2670914	3024	4032
9	can	IMG_8712	IMG_8712.jpeg	2337683	3024	4032
10	paper	IMG_8776	IMG_8776.jpeg	3899376	4032	3024
11	plastic_bag	IMG_8803	IMG_8803.jpeg	1652189	3024	4032
12	styrofoam	IMG_8875	IMG_8875.jpeg	2292790	3024	4032

Image viewer (1) - Orange


Image Filename Attribute
S image

Title Attribute
S image name

Image Size
[Slider]



IMG_8423

 Predictions - Orange

Show probabilities for (None)


Restore Original Order

	Logistic Regression	image name	image	size	width	height
1	can	IMG_8366	IMG_8366.jpeg	1493283	3024	3024
2	plastic	IMG_8381	IMG_8381.jpeg	1472250	3024	3024
3	paper	IMG_8423	IMG_8423.jpeg	1784733	3024	4032
4	plastic	IMG_8437	IMG_8437.jpeg	1467825	3024	3024
5	plastic_bag	IMG_8541	IMG_8541.jpeg	2593757	3024	4032
6	glass	IMG_8594	IMG_8594.jpeg	1973634	3024	4032
7	glass	IMG_8620	IMG_8620.jpeg	1686890	3024	4032
8	styrofoam	IMG_8702	IMG_8702.jpeg	2670914	3024	4032
9	can	IMG_8712	IMG_8712.jpeg	2337683	3024	4032
10	paper	IMG_8776	IMG_8776.jpeg	3899376	4032	3024
11	plastic_bag	IMG_8803	IMG_8803.jpeg	1652189	3024	4032
12	styrofoam	IMG_8875	IMG_8875.jpeg	2292790	3024	4032

Image Filename Attribute

Title Attribute

Image Size



IMG_8437

Predictions - Orange

Show probabilities for (None) Restore Original Order

	Logistic Regression	image name	image	size	width	height
1	can	IMG_8366	IMG_8366.jpeg	1493283	3024	3024
2	plastic	IMG_8381	IMG_8381.jpeg	1472250	3024	3024
3	paper	IMG_8423	IMG_8423.jpeg	1784733	3024	4032
4	plastic	IMG_8437	IMG_8437.jpeg	1467825	3024	3024
5	plastic_bag	IMG_8541	IMG_8541.jpeg	2593757	3024	4032
6	glass	IMG_8594	IMG_8594.jpeg	1973634	3024	4032
7	glass	IMG_8620	IMG_8620.jpeg	1686890	3024	4032
8	styrofoam	IMG_8702	IMG_8702.jpeg	2670914	3024	4032
9	can	IMG_8712	IMG_8712.jpeg	2337683	3024	4032
10	paper	IMG_8776	IMG_8776.jpeg	3899376	4032	3024
11	plastic_bag	IMG_8803	IMG_8803.jpeg	1652189	3024	4032
12	styrofoam	IMG_8875	IMG_8875.jpeg	2292790	3024	4032

12 | 1

