

Iris AutoML

What's in this session?

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2. Create new .NET CORE console project and add Machine Learning job
3. Pick a Scenario / Price Prediction
4. Set Data File
5. Set train time
6. Understand Train result
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Install ML.NET Model Builder

<https://marketplace.visualstudio.com/items?itemName=MLNET.07>



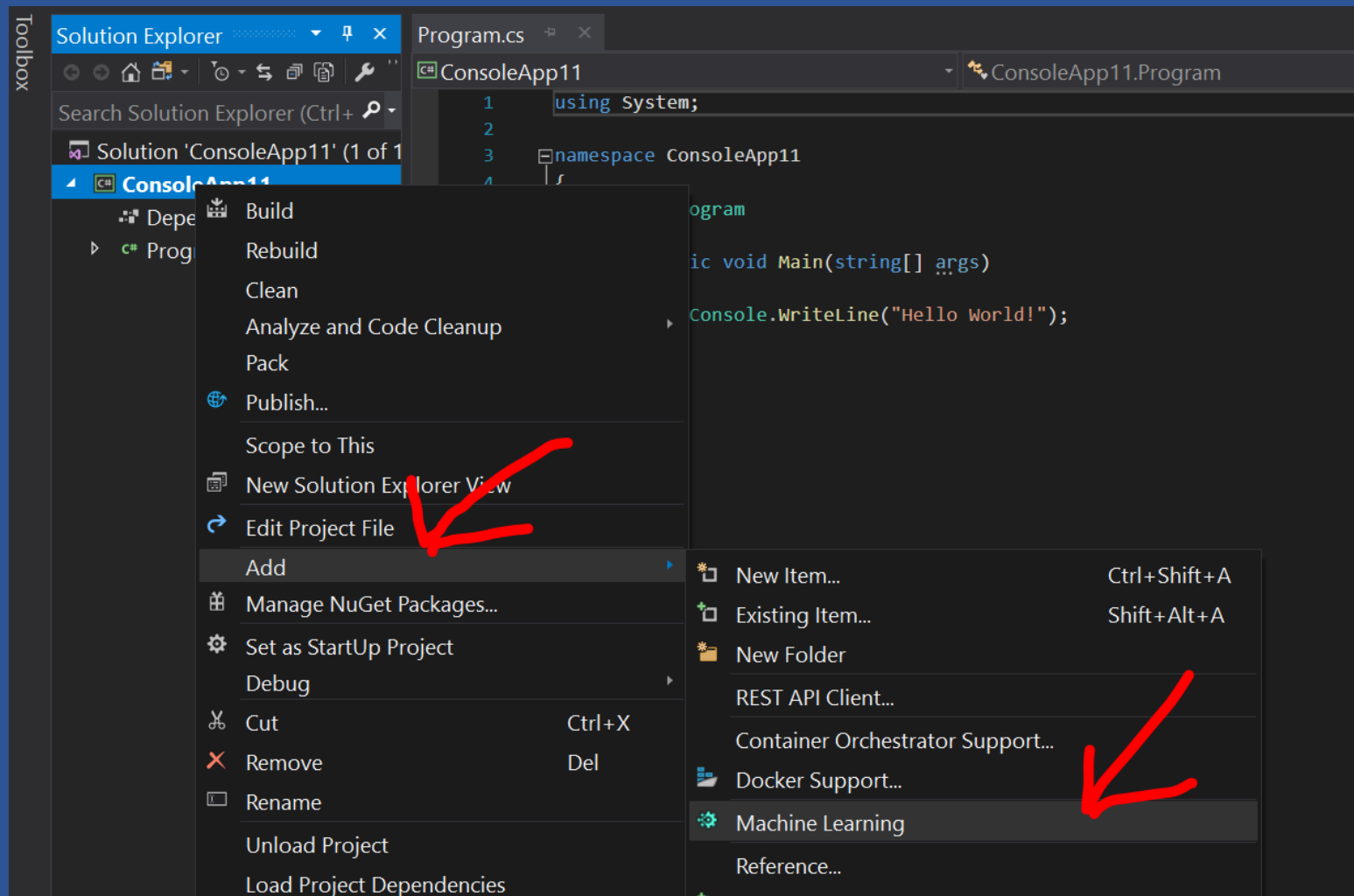
ML.NET Model Builder (Preview)

Microsoft | 24,428 installs |  39,194 downloads | ★★★★★ (12) | Free

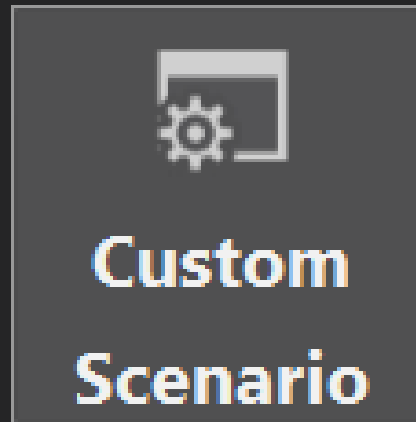
Simple UI tool to build custom machine learning models.

Download

Create new .NET CORE console project and add Machine Learning



Pick a Scenario / Custom Scenario




Build custom models with your data
using classification, regression and other
tasks.

Set Data File

Data / File /iris-data-train.csv
Label column name = class

Select a file: ...

Supported file formats: csv or tsv. Maximum file size: 10 MB

Column to Predict (Label): 


Data Preview

slen	swidth	plen	pwidth	class (Label)
5.1	3.5	1.4	0.2	Iris-setosa
4.9	3.0	1.4	0.2	Iris-setosa
4.7	3.2	1.3	0.2	Iris-setosa
4.6	3.1	1.5	0.2	Iris-setosa
5.0	3.6	1.4	0.2	Iris-setosa
5.4	3.9	1.7	0.4	Iris-setosa
4.6	3.4	1.4	0.3	Iris-setosa
5.0	3.4	1.5	0.2	Iris-setosa
4.4	2.9	1.4	0.2	Iris-setosa


Task = multiclass-classification

Time = 100 seconds

Input

Machine learning task: 

multiclass-classification ▼

Time to train (seconds): 

100

Start training

Understand the Train result

Progress

Start training to see progress and results

Status:	Done
Best Accuracy:	88.89%
Best Algorithm:	AveragedPerceptronOva
Last Algorithm:	FastForestOva

Understand evaluation result

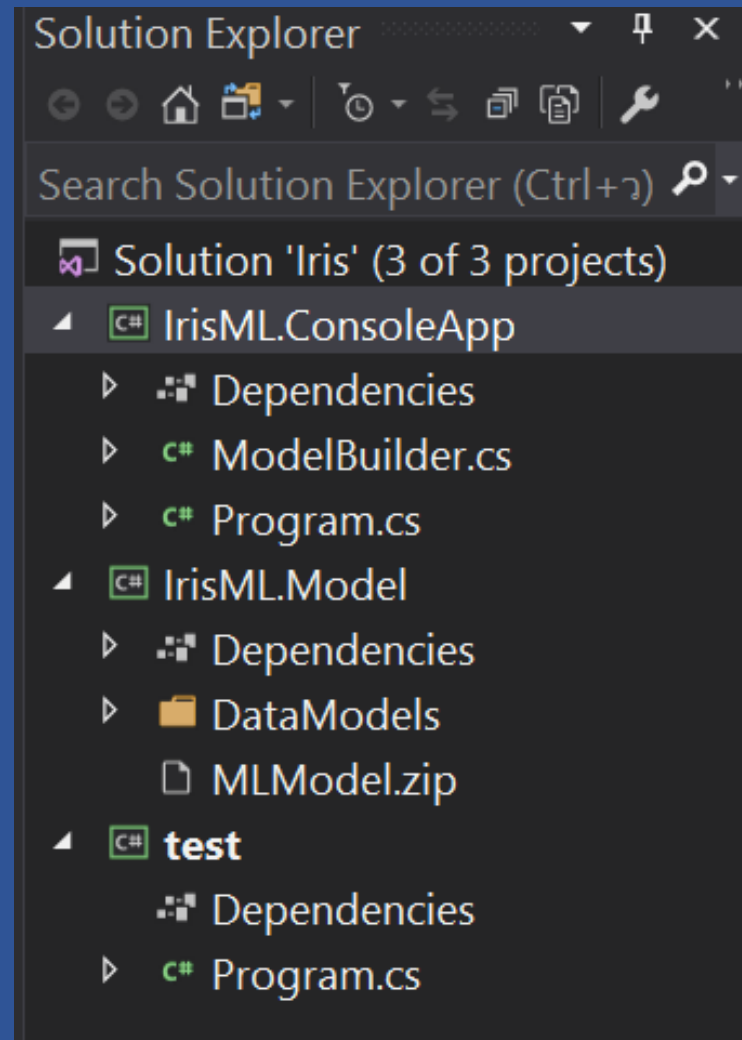
Output

ML Task: multiclass-classification
Dataset: iris-data-train.csv
Column to Predict (Label): class
Best Model: AveragedPerceptronOva
Best Model Accuracy: 88.89%
Training Time: 100.31 seconds
Models Explored (Total): 234

Top 5 models explored

Rank	Trainer	MicroAccuracy	MacroAccuracy	Duration
1	AveragedPerceptronOva	0.8889	0.9000	0.7
2	SdcaMaximumEntropyMulti	0.8889	0.9000	0.2
3	LightGbmMulti	0.8889	0.9000	0.2
4	FastTreeOva	0.8889	0.9000	0.3
5	LinearSvmOva	0.8889	0.9000	0.1

Examine Code



Next Step

Write Code to build, train, evaluate, and use
ML model