MathWorks®

R2024b

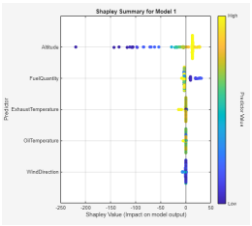
What's New in MATLAB® R2024b for AI?

Apps

Machine Learning apps

Plot Shapley values

After you train a model in the Classification Learner or Regression Learner app, select the model in the **Models** pane. Then, on the **Explain tab**, click **Shapley Importance**, **Shapley Summary**,or **Shapley Dependence** to create the corresponding plot.



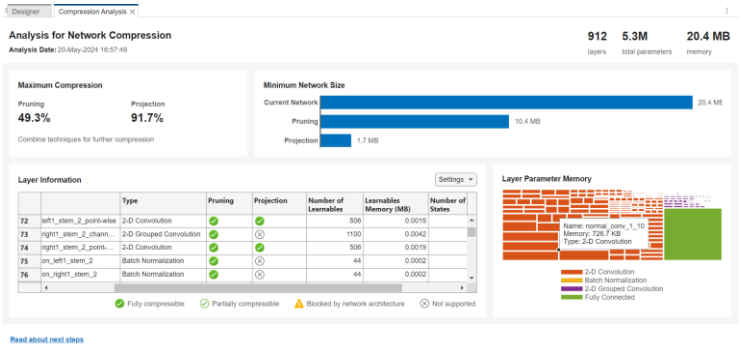
Create Compare Results plot

Using the Customize Styles dialog box.
You can apply your customized style to all new live scripts .

Deep Learning apps

Deep Network Designer: Analyze networks for compression

You can now use the Deep Network Designer app to analyze the compressibility of neural networks. For example, you can now check the maximum possible memory reduction of your network that Taylor pruning or projection compression can provide.



Generative AI

LLMs with MATLAB (GitHub)

Connect to local large language models using Ollama

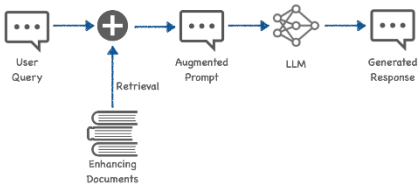
You can now generate text from local large language models in MATLAB®.
Connect to a local Ollama™ server and generate text using the `ollamaChat` function.

Connect to Azure OpenAI Service

You can now generate text from deployed LLMs hosted on Azure® OpenAI® Service using the `azureChat` function.

New example

Retrieval Augmented Generation Using ChatGPT and MATLAB.

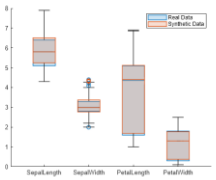


Model Building and Assessment

Data Generation

Generate synthetic data from existing tabular data

Use the `synthesizeTabularData` function to generate N observations of synthetic data using the existing data.

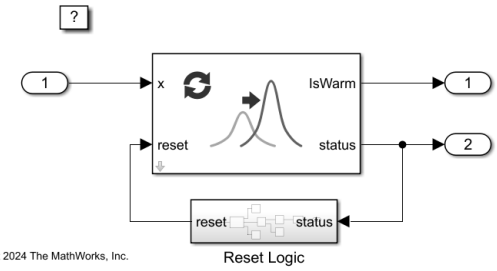


Deployment

Incremental Drift Detection

Detect drift during incremental learning in Simulink

You can now integrate the `detectdrift` function for incremental learning into Simulink® using the new Detect Drift block.



Simulink

New Deep Learning Layers block library and exportNetworkToSimulink function

Simulate, debug, and generate code for deep learning networks in Simulink® by using the new Deep Learning Layers block library. To generate a model that uses these blocks, use the new `exportNetworkToSimulink` function