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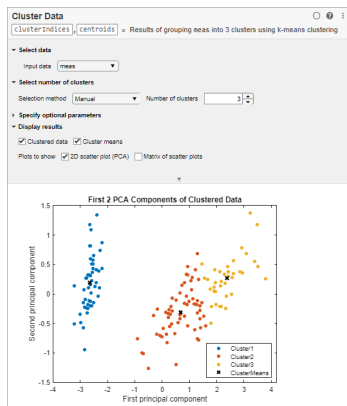
What's New in MATLAB R2021b for Machine Learning?

Machine Learning

Apps

Live Editor Task

Cluster Data

Interactively cluster data using *k*-means clustering and generate code

Learner App

Classification Learner App

Train Gaussian kernel classifiers for nonlinear classification of data with many observations

SVM Kernel   Logistic Regression Kernel

Predictive Modelling

Modelling

Anomaly Detection

Detect anomalies in data using the isolation forest algorithm

Automated Model Selection with ASHA Optimization

Automatically select a model with tuned hyperparameters using ASHA optimization for regression (`firauto`) or classification (`fitcauto`)

Feature Engineering

Regression feature engineering

Automatically create new features before training a regression model (`genrfeatures`)

Explainability

Generalized Additive Models: Plot prediction intervals

Train a generalized additive model (GAM), and then compute & plot the prediction intervals of response values. Specify `FitStandardDeviation` as true when you train a generalized additive model for regression by using the `fitrgam` function
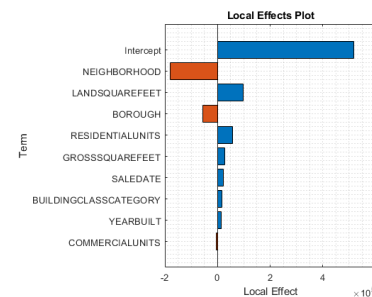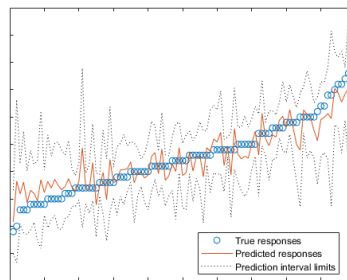
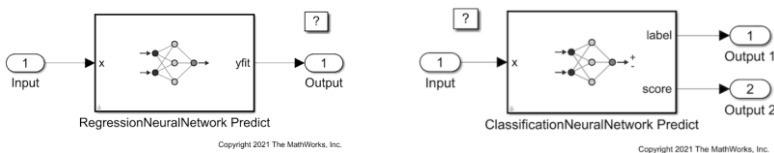## Deployment

Simulink

Neural Network Prediction Blocks

Integrate the predict function of neural network classification and regression objects into Simulink using the new prediction blocks. The blocks support C/C++ code generation and fixed-point conversion

Matlab Production Server

Export models from Learner Apps to MATLAB Production Server

After you train a model in the Classification Learner or Regression Learner app, you can export the model for deployment to MATLAB Production Server. Select the trained model in the **Models** pane, and on **Regression Learner** or Classification Learner tab, click **Export Model** and select **Export Model for Deployment**

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