Intro to scikit-learn

scikit-Learn

Datasets

Loading

```
from sklearn.datasets import load_iris

iris_data = load_iris()
```

Fetching

```
from sklearn.datasets import fetch_california_housing

housing_data = fetch_california_housing()
```

Generating

```
from sklearn.datasets import make_regression

features, targets = make_regression(n_samples=10, n_features=1, random_state=42)
```

Bunches

Estimators

```
from sklearn.datasets import make_regression
from sklearn.linear_model import LinearRegression

regression = LinearRegression()
regression.fit(features, targets)
predictions = regression.predict(features)
```

Transformers

```
from sklearn.preprocessing import MinMaxScaler

transformer = MinMaxScaler()
transformer.fit(features)
features = transformer.transform(features)
```

Pipelines

```
from sklearn.pipeline import Pipeline

features, targets = make_regression(
  n_samples=10, n_features=1,
  random_state=42, noise=5.0
)

pipeline = Pipeline([
  ('scale', MinMaxScaler()),
  ('regression', LinearRegression())
])

pipeline.fit(features, targets)

predictions = pipeline.predict(features)
```

Metrics

```
from sklearn.metrics import mean_squared_error

mean_squared_error(targets, predictions)
```

Your Turn