

A2: Predicting Car Price

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```
In [39]: #import library
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
import mlflow
import joblib
import warnings
warnings.filterwarnings('ignore')
```

Preparing data

```
In [40]: dt = pd.read_csv("../data/Cars.csv")
```

```
In [41]: #cleansing data (from A1 predicting car price)
Owner_map = {"First Owner": 1, "Second Owner": 2, "Third Owner": 3, "Fourth & Above Owner": 4, "Test Drive Car": 5}
dt['owner'] = dt['owner'].map(Owner_map)
dt = dt[(dt['fuel'] != 'CNG') & (dt['fuel'] != 'LPG')]
dt['mileage'] = dt['mileage'].str.split().str[0].astype(float)
dt['engine'] = dt['engine'].str.split().str[0].astype(float)
dt['max_power'] = dt['max_power'].str.split().str[0].astype(float)
dt['name'] = dt['name'].str.split().str[0]
dt = dt.rename(columns={'name': 'brand'})
dt = dt.drop(columns=['torque'])
dt = dt[(dt['owner'] != 5)]
dt = pd.get_dummies(dt, columns=['fuel', 'transmission', 'seller_type', 'owner'], drop_first=True)
X = dt.drop(columns=['selling_price', 'engine', 'seats', 'brand'])
y = dt['selling_price']
```

```
In [42]: #split train and test data
from sklearn.model_selection import train_test_split

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.3, random_state = 42)
```

```
In [43]: y_train = np.log(y_train)
y_test = np.log(y_test)
```

```
In [44]: X_train['max_power'].fillna(X_train['max_power'].median(), inplace=True)
X_train['mileage'].fillna(X_train['mileage'].median(), inplace=True)
```

```
X_test['max_power'].fillna(X_train['max_power'].median(), inplace=True)
X_test['mileage'].fillna(X_train['mileage'].median(), inplace=True)
```

```
In [45]: X_train.isna().sum()
```

```
Out[45]: year                0
km_driven                 0
mileage                  0
max_power                0
fuel_Petrol              0
transmission_Manual      0
seller_type_Individual   0
seller_type_Trustmark Dealer 0
owner_2                  0
owner_3                  0
owner_4                  0
dtype: int64
```

```
In [46]: from sklearn.preprocessing import StandardScaler

num_features = ['year', 'km_driven', 'mileage', 'max_power']

scaler = StandardScaler()
X_train = X_train.copy()
X_test = X_test.copy()

X_train[num_features] = scaler.fit_transform(X_train[num_features])
X_test[num_features] = scaler.transform(X_test[num_features])
```

```
In [47]: X_train = X_train.to_numpy(dtype=float)
y_train = y_train.to_numpy(dtype=float).ravel()
X_test = X_test.to_numpy(dtype=float)
y_test = y_test.to_numpy(dtype=float).ravel()
```

Task 1. Implementation

```
In [ ]: mlflow.set_tracking_uri("http://localhost:5000")
mlflow.set_experiment(experiment_name="Car price prediction")
```

```
In [49]: from sklearn.model_selection import KFold
from sklearn.preprocessing import StandardScaler
from sklearn.preprocessing import PolynomialFeatures

class LinearRegression(object):

    kfold = KFold(n_splits=3)
```

```

def __init__(self,
    regularization=None,
    lr=0.001,
    method='batch',
    weight_init_mode='zeros',
    use_momentum=True,
    momentum=0.9,
    degree=1, #for polynomial features
    num_epochs=500,
    batch_size=50,
    cv=kfold,):
    self.regularization = regularization
    self.lr = lr
    self.method = method
    self.num_epochs = num_epochs
    self.batch_size = batch_size
    self.cv = cv
    self.weight_init_mode = weight_init_mode
    self.use_momentum = use_momentum
    self.momentum = momentum
    self.degree = degree
    self.prev_step = 0

#metrics
#function mse that compute the mse score
def mse(self, ytrue, ypred):
    ytrue = np.asarray(ytrue, dtype=float).reshape(-1)  #(m,)
    ypred = np.asarray(ypred, dtype=float).reshape(-1)
    m = ytrue.size
    if m == 0:
        raise ValueError("Empty ytrue in mse")
    else:
        return ((ypred - ytrue) ** 2).sum() / ytrue.shape[0]

#add a function r2 that compute the r2 score
def r2(self, ytrue, ypred):
    ss_res = np.sum((ytrue - ypred) ** 2)
    ss_tot = np.sum((ytrue - ytrue.mean()) ** 2)
    r2_score = 1.0 - (ss_res / ss_tot)
    return r2_score

#initializers
#add a function xavier initialization method to calculated as a random number with uniform prob dist
def xavier_init(self, n_input, n_output):
    lower, upper = -(1.0/np.sqrt(n_input)), (1.0/np.sqrt(n_input))
    numbers = np.random.rand(n_output)
    scaled = lower + numbers*(upper-lower)
    return scaled

def fit(self, X_train, y_train):
    self.kfold_scores = list()
    #reset val loss

```

```

self.val_loss_old = np.inf
#cross-validation
for fold, (train_idx, val_idx) in enumerate(self.cv.split(X_train)):

    X_cross_train = X_train[train_idx]
    y_cross_train = y_train[train_idx]
    X_cross_val = X_train[val_idx]
    y_cross_val = y_train[val_idx]

    if self.degree > 1:
        X_cross_train = self.polynomial_features(X_cross_train, self.degree)
        X_cross_val = self.polynomial_features(X_cross_val, self.degree)

    if self.weight_init_mode in ('zero', 'zeros'):
        self.theta = np.zeros(X_cross_train.shape[1])
    elif self.weight_init_mode in ('xavier', 'xavier_init', 'xavier_weigh_init'):
        self.theta = self.xavier_init(X_cross_train.shape[0], X_cross_train.shape[1])
    else:
        raise ValueError(f"unknown weight_init: {self.weight_init_mode}")

    #define X_cross_train as only a subset of the data
    #how big is this subset? => mini-batch size ==> 50

    #one epoch will exhaust the WHOLE training set
    with mlflow.start_run(run_name=f"Fold-{fold}", nested=True):

        params = {"method": self.method, "lr": self.lr, "reg": type(self).__name__}
        mlflow.log_params(params=params)

        for epoch in range(self.num_epochs):

            #with replacement or no replacement
            #with replacement means just randomize
            #with no replacement means 0:50, 51:100, 101:150, .....300:323
            #shuffle your index
            perm = np.random.permutation(X_cross_train.shape[0])

            X_cross_train = X_cross_train[perm]
            y_cross_train = y_cross_train[perm]

            if self.method == 'stochastic':
                for batch_idx in range(X_cross_train.shape[0]):
                    X_method_train = X_cross_train[batch_idx].reshape(1, -1)  #(11,) ==> (1, 11) ==> (m, n)
                    y_method_train = y_cross_train[[batch_idx]]
                    train_loss = self._train(X_method_train, y_method_train)
            elif self.method == 'mini-batch':
                for batch_idx in range(0, X_cross_train.shape[0], self.batch_size):
                    #batch_idx = 0, 50, 100, 150
                    X_method_train = X_cross_train[batch_idx:batch_idx+self.batch_size, :]

```

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        y_method_train = y_cross_train[batch_idx:batch_idx+self.batch_size]
        train_loss = self._train(X_method_train, y_method_train)
    else: #batch
        X_method_train = X_cross_train
        y_method_train = y_cross_train
        train_loss = self._train(X_method_train, y_method_train)

    mlflow.log_metric(key="train_loss", value=train_loss, step=epoch)

    yhat_val = self.predict(X_cross_val)
    val_loss_new = self.mse(y_cross_val, yhat_val)
    val_r2 = self.r2(y_cross_val, yhat_val)
    mlflow.log_metric(key="val_loss", value=val_loss_new, step=epoch)
    mlflow.log_metric(key="val_r2", value=val_r2, step=epoch)
    #early stopping
    if np.allclose(val_loss_new, self.val_loss_old):
        break
    self.val_loss_old = val_loss_new

    self.kfold_scores.append(val_loss_new)
    print(f"Fold {fold}: MSE Score - {val_loss_new}, R2 Score - {val_r2}")

#update
def _train(self, X, y):
    yhat = self.predict(X)
    m = X.shape[0]

    if self.regularization is not None:
        reg_grad = self.regularization.derivation(self.theta)
    else: reg_grad = 0
    grad = (1/m) * X.T @ (yhat - y) + reg_grad
    #add momentum from pseudocode
    if self.use_momentum:
        step = self.lr*grad
        self.theta = self.theta - step + self.momentum*self.prev_step
        self.prev_step = step
    else:
        self.theta = self.theta - self.lr * grad
    return self.mse(y, yhat)

def predict(self, X, poly=False):
    if X.ndim == 1:
        X = X.reshape(1, -1) # (1, n)
    if poly and self.degree > 1:
        X = self.polynomial_features(X, self.degree)
    return X @ self.theta

def _coef(self):
    return self.theta[1:] #remind that theta is (w0, w1, w2, w3, w4.....wn)
                           #w0 is the bias or the intercept
                           #w1....wn are the weights / coefficients / theta

```

```

def _bias(self):
    return self.theta[0]

#polynomial features
def polynomial_features(self,X, degree):
    X_poly = np.ones((X.shape[0], 1))
    for d in range(1, degree + 1):
        X_poly = np.hstack((X_poly, X ** d))
    return X_poly

```

```

In [50]: class LassoPenalty:

    def __init__(self, l):
        self.l = l # lambda value

    def __call__(self, theta): #__call__ allows us to call class as method
        return self.l * np.sum(np.abs(theta))

    def derivation(self, theta):
        return self.l * np.sign(theta)

class RidgePenalty:

    def __init__(self, l):
        self.l = l

    def __call__(self, theta): #__call__ allows us to call class as method
        return self.l * np.sum(np.square(theta))

    def derivation(self, theta):
        return self.l * 2 * theta

class Lasso(LinearRegression):

    def __init__(self, method, lr, l,weight_init_mode,use_momentum):
        self.regularization = LassoPenalty(l)
        super().__init__(self.regularization, lr, method,weight_init_mode,use_momentum)

class Ridge(LinearRegression):

    def __init__(self, method, lr, l,weight_init_mode,use_momentum):
        self.regularization = RidgePenalty(l)
        super().__init__(self.regularization, lr, method,weight_init_mode,use_momentum)

class Polynomial(LinearRegression):
    def __init__(self, method='batch', lr=0.001, weight_init_mode='zeros',use_momentum=True, momentum=0.9, degree=2):
        super().__init__(regularization=None,lr=lr,method=method,weight_init_mode=weight_init_mode, use_momentum=use_momentum,momentum=momentum,degree=degree)

```

Task 2 Expirement

```
In [35]: import sys
def str_to_class(classname):
    return getattr(sys.modules[__name__], classname)
```

MLflow

```
In [15]: regs = ["Polynomial", "Ridge", "Lasso", "LinearRegression"] #(1) polynomial, Lasso, ridge, normal
momentums=[True, False] #(2) with or without momentum
methods = ['stochastic', 'mini-batch', 'batch'] #(3) stochastic, mini-batch, batch
weights = ['zeros', 'xavier'] #(4) zero, xavier
learning_rates = [0.01, 0.001, 0.0001] #(5) Learning rates
best_mse = float("inf")
i=0
#for Loop order (4 regs -> 3 methods -> 3 Learning rates -> 2 weights -> with or without momentum)
for reg in regs:
    for lr in learning_rates:
        for method in methods:
            for weight in weights:
                for momentum in momentums:

                    if reg == 'Polynomial':
                        params = {'method': method, 'lr': lr, 'weight_init_mode': weight, 'use_momentum': momentum, 'degree': 2}
                    elif reg == 'Ridge': # L = Lambda
                        params = {'method': method, 'lr': lr, 'l': 0.1, 'weight_init_mode': weight, 'use_momentum': momentum}
                    elif reg == 'Lasso': # L = Lambda
                        params = {'method': method, 'lr': lr, 'l': 0.1, 'weight_init_mode': weight, 'use_momentum': momentum}
                    else: #LinearRegression
                        params = {'method': method, 'lr': lr, 'weight_init_mode': weight, 'use_momentum': momentum}

                    mlflow.start_run(run_name=f"method-{params['method']}-lr-{params['lr']}-weight_init_mode-{params['weight_init_mode']}-use_momentum-{pa
                    print("=*5, reg, "=*5)

                    type_of_regression = str_to_class(reg) #Ridge, Lasso, Polynomial, LinearRegression
                    model = type_of_regression(**params)
                    model.fit(X_train, y_train)

                    if reg == 'Polynomial':
                        poly = True
                    else:
                        poly = False

                    yhat = model.predict(X_test, poly)
                    mse = model.mse(y_test, yhat)
                    r2_score = model.r2(y_test, yhat)
```

```
print("Test MSE: ", mse)
print("Test R2: ", r2_score)
mlflow.log_metric(key="test_mse", value=mse)
mlflow.log_metric(key="test_r2", value=r2_score)

if mse < best_mse:
    signature = mlflow.models.infer_signature(X_train, model.predict(X_train, poly))












    logged_model = mlflow.sklearn.log_model(
        model,
        artifact_path="model",
        signature=signature,
        registered_model_name=f"model{i}")
    i += 1
    best_mse = mse























    joblib.dump(model, f"method-{params['method']}-lr-{params['lr']}-weight_init_mode-{params['weight_init_mode']}-use_momentum-{param

mlflow.end_run()
```




```
===== Polynomial =====
Fold 0: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/cc58962c2bfd4cf4aa08436a46861625
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/78f3b4a28522470da3b0a79291fe7735
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/b2d92822d48b43ddba956dfe4975f6c6
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: inf
Test R2: -inf
===== Polynomial =====
Fold 0: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/1d7003debefa46bb926c2f6bdc4d1c17
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/2285ecdafa76f41f080621f61487b989f
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/fb6ea7a461e14e789b2cb68f1ddd387a
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: inf
Test R2: -inf
🔗 View run method-stochastic-lr-0.01-weight_init_mode-zeros-use_momentum-False-reg-Polynomial at: http://localhost:5000/#/experiments/176410324244826153/runs/e9e07805b6fd4a3e9425ba2b6ec217f3
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
===== Polynomial =====
Fold 0: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/f4cd4db2e71542e2b810d9ae659f7773
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/fbf920f4ec8146c0afbeb35733c2d879
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/1eb2489f80bd4f5da50140efdae32dd0
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: inf
Test R2: -inf
===== Polynomial =====
Fold 0: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/31a755f1ab804f9fa9ebfbd9a4773da8
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/410b1a274763499983a1819f64e71d13
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/25fa05874eae42cb8bc314e7159d4313
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: inf
Test R2: -inf
```


 View run method-stochastic-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/a3f4013b40f243a7a2e7c22cd29cdaf6>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 ===== Polynomial =====
 Fold 0: MSE Score - inf, R2 Score - -inf
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/2f1ea5dba7934334a21f87119976467b>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/cd4c26b52abb4c54b169193b7e1845b5>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 2: MSE Score - inf, R2 Score - -inf
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ee676b0bea434473976aeb151a324fc>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Test MSE: inf
 Test R2: -inf
 ===== Polynomial =====
 Fold 0: MSE Score - inf, R2 Score - -inf
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/accf7cd4bde9404e83e31fd765331e55>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/f79fe86b79cc484dbbe0af75cb398c0a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 2025/09/12 11:36:00 WARNING mlflow.models.model: `artifact_path` is deprecated. Please use `name` instead.
 Fold 2: MSE Score - 3.460195803809411e+82, R2 Score - -4.9828430928783446e+82
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/30dad062d358442aa2162826259598f4>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Test MSE: 7.549217636066139e+79
 Test R2: -1.0729617484217485e+80
 Registered model 'model0' already exists. Creating a new version of this model...
 2025/09/12 11:36:02 INFO mlflow.store.model_registry.abstract_store: Waiting up to 300 seconds for model version to finish creation. Model name: model0, version 5
 Created version '5' of model 'model0'.

 View run method-mini-batch-lr-0.01-weight_init_mode-zeros-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/da632699ce6548a9875c441cb3583515>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 ===== Polynomial =====
 Fold 0: MSE Score - inf, R2 Score - -inf
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a05454caa929414baf383d7933287469>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b43a1b3733f04e7792bd570cad69ccf0>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 2: MSE Score - inf, R2 Score - -inf
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/8fc7ad1ce15d46df9b2338f5dad7029c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Test MSE: inf
 Test R2: -inf
 ===== Polynomial =====
 Fold 0: MSE Score - inf, R2 Score - -inf
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c6494094e4d6460dae66901710398558>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/bfa44f5c45fc499b8078de2e6a6142db>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 2: MSE Score - 6.44609733319662e+113, R2 Score - -9.282680343516616e+113
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/de16178f4663407c9e02439890a73b29>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Test MSE: 7.058350391506966e+111
 Test R2: -1.0031953431655308e+112
 View run method-mini-batch-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/850a9189838c4b3d92d256d301804a75>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 ===== Polynomial =====
 Fold 0: MSE Score - inf, R2 Score - -inf
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/09049de2c58d4c728594d17cef404a79>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b16a25d0dd884d51aed25dc207a06ceb>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 2025/09/12 11:37:59 WARNING mlflow.models.model: `artifact_path` is deprecated. Please use `name` instead.
 Fold 2: MSE Score - 14.408090944176276, R2 Score - -19.748321919734398
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/261c744bb7494dada54c818da963387d>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Test MSE: 15.939296934556882
 Test R2: -21.654342121241946
 Registered model 'model1' already exists. Creating a new version of this model...
 2025/09/12 11:38:01 INFO mlflow.store.model_registry.abstract_store: Waiting up to 300 seconds for model version to finish creation. Model name: model1, version 3
 Created version '3' of model 'model1'.


===== Polynomial =====

Fold 0: MSE Score - inf, R2 Score - -inf

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/8f5932a82df64414a15def7fab35cc1>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 1: MSE Score - inf, R2 Score - -inf

 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/08b7096d530c45fbbf31da6aee714259>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

2025/09/12 11:39:20 WARNING mlflow.models.model: `artifact_path` is deprecated. Please use `name` instead.

Fold 2: MSE Score - 3.9942880308516795, R2 Score - -4.751960771579561

 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/d0347e695ef0480f90cff9056c648cda>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Test MSE: 4.284207389089759


Test R2: -5.089095416772866

Registered model 'model2' already exists. Creating a new version of this model...

2025/09/12 11:39:22 INFO mlflow.store.model_registry.abstract_store: Waiting up to 300 seconds for model version to finish creation. Model name: model2, version 3

Created version '3' of model 'model2'.

 View run method-batch-lr-0.01-weight_init_mode-zeros-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/86312a80640449c382eafd8e26b25d7d>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


===== Polynomial =====

Fold 0: MSE Score - inf, R2 Score - -inf

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/398965ae1dab43d8b520167630c015e5>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 1: MSE Score - inf, R2 Score - -inf

 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c6e432a540eb4d14908f44c11778503e>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 2: MSE Score - 14.350052823948596, R2 Score - -19.664744323870675

 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/4394bf52c9454143b8b3cf2a140bbdf0>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Test MSE: 15.882744611027631

Test R2: -21.57396494461722


===== Polynomial =====

Fold 0: MSE Score - inf, R2 Score - -inf

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/3c70d54d860049d6838f91d2e6595113>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Fold 1: MSE Score - inf, R2 Score - -inf

 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/f80470eeb48d4527b18b6ff4a4db251e>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

2025/09/12 11:41:32 WARNING mlflow.models.model: `artifact_path` is deprecated. Please use `name` instead.

Fold 2: MSE Score - 3.9864162353762507, R2 Score - -4.740625019518909

 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/4d4e0d396aba40718c7e9dd6ddf66a99>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Test MSE: 4.2761572280502405


Test R2: -5.077653814105627

Registered model 'model3' already exists. Creating a new version of this model...

2025/09/12 11:41:35 INFO mlflow.store.model_registry.abstract_store: Waiting up to 300 seconds for model version to finish creation. Model name: model3, version 3


Created version '3' of model 'model3'.


 View run method-batch-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/897557a9b05645028ec9f68ce1ade1ab>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


==== Polynomial ====


Fold 0: MSE Score - inf, R2 Score - -inf

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/d2abf5d9d18f4098ad57543f7b8c9872>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Fold 1: MSE Score - inf, R2 Score - -inf

 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/bb5fc7577ee1432096568966a44422af>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 2: MSE Score - inf, R2 Score - -inf

 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/1ed87c993b254df99a0facdfe2e16f00>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Test MSE: inf

Test R2: -inf


==== Polynomial ====


Fold 0: MSE Score - inf, R2 Score - -inf

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/3fb7423bc5dd4288b5f11c939dae94f3>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Fold 1: MSE Score - inf, R2 Score - -inf

 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/46fd76e4594341ac9a016abf8ce302e4>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Fold 2: MSE Score - inf, R2 Score - -inf


 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/8540eb37d7a9441b9f5b2cbda3eded80>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Test MSE: 8.288275402126922e+302


Test R2: -1.1780031912685954e+303


 View run method-stochastic-lr-0.001-weight_init_mode-zeros-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/217f25979a1f462a9a85d9f39df7a132>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


==== Polynomial ====


Fold 0: MSE Score - inf, R2 Score - -inf

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/7cbf282b0cc9412c945830142fc77e64>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Fold 1: MSE Score - inf, R2 Score - -inf

 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/5f04d096732f4c74aee7c3d0699cb7ff>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 2: MSE Score - inf, R2 Score - -inf

 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/9833c2a8f4ff46e69cf38eb6525a5ec0>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Test MSE: inf

Test R2: -inf


==== Polynomial ====


Fold 0: MSE Score - inf, R2 Score - -inf

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/95eb167b50a248789e2b4b5f5b404c6d>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


























Fold 1: MSE Score - inf, R2 Score - -inf



























 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ffd56c059c9248fba57625e659d1da6a>




























 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 2: MSE Score - inf, R2 Score - -inf



























 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e97f35ac452e469ab7965e25e530785b>

























 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: inf
Test R2: -inf
 View run method-stochastic-lr-0.001-weight_init_mode-xavier-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/15e6d4d8dd740e99e322aca25389c9c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Polynomial =====
Fold 0: MSE Score - 4.561223788722485e+92, R2 Score - -6.643387340873878e+92
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/fc2225e6436a47c69e795589ac52d9d2>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e75ab345b87845a9871020c10bca21a3>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 2.779426613489474e+294, R2 Score - -4.002503756562301e+294
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/5b9d3ef481474119b9e29693778e41f6>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 3.047516380053828e+294
Test R2: -4.3314004988606814e+294
===== Polynomial =====
Fold 0: MSE Score - inf, R2 Score - -inf
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/3150b155f96a4b06a04d90b8124d381f>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/14ed40dab3c74409a1385a1cbb443432>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - inf, R2 Score - -inf
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/fe9758a8a94849db9d5e99261d0d55ce>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 8.189432019417234e+303
Test R2: -1.1639546932857802e+304
 View run method-mini-batch-lr-0.001-weight_init_mode-zeros-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/033b93992185441d939ffa270fc4658d>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Polynomial =====
Fold 0: MSE Score - 4.49311898980469e+81, R2 Score - -6.544193225447684e+81
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/031045d73b71408b9fce859571c7ab6b>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/f92da5c8364e4fb8ad71b9c402c61e26>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 1.3297202935420905e+295, R2 Score - -1.9148591454974556e+295
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/0e23faa534f64e2a88fb4fd329f3a85c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 1.1979693623766097e+295
Test R2: -1.7026602802791857e+295
===== Polynomial =====
Fold 0: MSE Score - inf, R2 Score - -inf
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/7388af11ff454247993ecf00873efbca>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ee2527b7e4f54068b27ee15ed2cfa23e>




























 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - inf, R2 Score - -inf
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a068bdf7efd745b5b9e33a902c7d65cb>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 8.19549188734187e+303
Test R2: -1.1648159754473327e+304
 View run method-mini-batch-lr-0.001-weight_init_mode-xavier-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/5afced026eaa4dc0a20a6dfe31ac3d42>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Polynomial =====
Fold 0: MSE Score - 86.03268943232565, R2 Score - -124.30594997096739
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/5265ef4fffb4c405db58427e74cd953eb>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 85.92628856897801, R2 Score - -117.80186670544946
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/1ead2ed95b574118a2ed6e7a047468a0>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 92.6766837141083, R2 Score - -132.4587403427622
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/672feee75a2d4563aa8641cb68b93170>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 86.27995742655666
Test R2: -121.62872583230053
===== Polynomial =====
Fold 0: MSE Score - 11.019043306475856, R2 Score - -15.049151763124907
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/74d8166e4fd74f0dbf3b9a90f97c3a59>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.249159964218517, R2 Score - -15.935714244827697
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b0a9ab0489d349e8905f990cfd386c76>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 14.23776214167885, R2 Score - -19.50304051221747
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e245cd4fe83f4714be56f896ea6b3ef3>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 15.767509937862643
Test R2: -21.410183209398436
 View run method-batch-lr-0.001-weight_init_mode-zeros-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/4b55f1a506db48ee80b1620b42fa02bb>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Polynomial =====
Fold 0: MSE Score - 85.86705574812993, R2 Score - -124.06470578480646
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/5e566d42481a4d11b0177239934f0690>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 85.57683546795457, R2 Score - -117.31871211540492
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/14179e4a18bd484598666c40698fd2a7>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 92.47396850132061, R2 Score - -132.16682099624762
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b638806a07364848a43d3c44886b7091>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 86.01747110496609
Test R2: -121.25565699771681
===== Polynomial =====
Fold 0: MSE Score - 11.019540824646189, R2 Score - -15.049876394510637
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/7c682603d2c84c8f9d18de7cf4941c50>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - 12.238207996676609, R2 Score - -15.920572031545301
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/52437347bdbc43ad825ffd1b9ee4d519>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 2: MSE Score - 14.244771583550834, R2 Score - -19.513134434930834
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/85c0f77d922644f284046b2423eb4cfc>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Test MSE: 15.75565506502762
 Test R2: -21.393334012968314
 View run method-batch-lr-0.001-weight_init_mode-xavier-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/d956dbc4f7c0475eb78200feb009499b>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 ===== Polynomial =====
 Fold 0: MSE Score - inf, R2 Score - -inf
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/0801daf2bd7348aeba412bc730903360>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/f0425881df6d4dde84572f191db6553f>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 2: MSE Score - inf, R2 Score - -inf
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/1933d9a672f44530953047ff630e6cdc>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Test MSE: 3.0239499935550565e+302
 Test R2: -4.297905860766129e+302
 ===== Polynomial =====
 Fold 0: MSE Score - inf, R2 Score - -inf
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/199af469c2dc4f5582217cb541335710>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/7654e6d83ace46c1a7fc2e0a0df9654d>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 2: MSE Score - inf, R2 Score - -inf
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c0ae6c09d10f460bbec465a0482b33d5>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Test MSE: 1.2707678938813272e+304
 Test R2: -1.8061280082099174e+304
 View run method-stochastic-lr-0.0001-weight_init_mode-zeros-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/9721cf3ab90d4b9fa84e130c1dfcaa25>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 ===== Polynomial =====
 Fold 0: MSE Score - inf, R2 Score - -inf
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/50795fedac114875b8137bf0d6dda41a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/0ce4b61708454a99b111891be85fdb13>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 2: MSE Score - inf, R2 Score - -inf
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/907f9e3cb24543a38930c1f1281e4574>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Test MSE: 1.811234401052208e+303
 Test R2: -2.5742869307014492e+303



```
===== Polynomial =====
Fold 0: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/69a7edcf01d94a24b0c492a16a1910c4
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/c074b5fc6d224875af80977b4652ae27
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/c129f915943e46739b1dc9c89e6065f0
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 6.318497788485992e+304
Test R2: -8.9804093104218e+304
🔗 View run method-stochastic-lr-0.0001-weight_init_mode-xavier-use_momentum-False-reg-Polynomial at: http://localhost:5000/#/experiments/176410324244826153/runs/51dbdf63645a495db13a170be58ff3e6
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
===== Polynomial =====
Fold 0: MSE Score - 14.014539432623707, R2 Score - -19.412068814748253
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/a79c98ccc4de4cb8a7f3e9e9c9579e6a
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 15.367649139311087, R2 Score - -20.247343915697595
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/e9dacd8713d643299d314a673e1ed2cd
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 17.590070749819173, R2 Score - -24.330521019210394
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/656c426f56514781b03531673402b650
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 19.35091119216097
Test R2: -26.503230807787926
===== Polynomial =====
Fold 0: MSE Score - 2.7780417263519166e+59, R2 Score - -4.046196392050918e+59
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/c62302a14b1e49d9bf9d8c1a06ccb5ef
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - inf, R2 Score - -inf
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/e993028d431143c981cf8cc1377a8b90
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 4.6154142659640875, R2 Score - -5.646411474926483
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/5826d7ce6c47443994878b362871d3ae
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 5.018739645323325
Test R2: -6.133077789403504
🔗 View run method-mini-batch-lr-0.0001-weight_init_mode-zeros-use_momentum-False-reg-Polynomial at: http://localhost:5000/#/experiments/176410324244826153/runs/c3e6b34085414637bd9dc55ba45587c9
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
===== Polynomial =====
Fold 0: MSE Score - 13.998884564727474, R2 Score - -19.389267620151745
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/8badee17893042e49d0518281c3d084c
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 15.435000583732384, R2 Score - -20.34046416394543
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/a4cb283989864d7b8b54b2dc44c63d41
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 17.56809372404695, R2 Score - -24.298873078665938
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/deed19c8b35b4610960ad19c83ae4550
```


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 19.369922704608584
Test R2: -26.53025165500589
==== Polynomial ====
Fold 0: MSE Score - 3.9286694322208095e+49, R2 Score - -5.722076789353045e+49
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/765012e9e0a1444aacd06643287048ba>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - inf, R2 Score - -inf
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/fedd03a326914b88aca6bac273f1cd19>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 6.098584664750515, R2 Score - -7.782245917884392
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/009587bcd0345bd8561bfe984ef9854>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 6.817859246689329
Test R2: -8.690146092586536
 View run method-mini-batch-lr-0.0001-weight_init_mode-xavier-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/360939ae4c334de9924cda02181b1ae7>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== Polynomial ====
Fold 0: MSE Score - 157.21368634540278, R2 Score - -227.98052410002254
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e7cba2520a1840e3b61a8a8d7c8dbcd0>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 156.5948854788187, R2 Score - -215.50841693779688
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/31c380b0ebb644fb953156263e12bbff>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 157.60619476184243, R2 Score - -225.9602599076332
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/d03a4e76624642a4815d3f42db3fb88c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 156.2697738270062
Test R2: -221.10445881153393
==== Polynomial ====
Fold 0: MSE Score - 86.56324234380159, R2 Score - -125.07869620290579
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/7143f4d0a69546d3bbb8993842520ff0>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 85.8545853448659, R2 Score - -117.70272967747832
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e3076803eb3a4834bb0e54e8e95b7a68>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 92.6582980716165, R2 Score - -132.43226416138614
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/2ac2b36e4f734043800343e9ea74b5a6>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 86.20099314937237
Test R2: -121.5164947999009
 View run method-batch-lr-0.0001-weight_init_mode-zeros-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/00568e2ae0134236820951eff8bac74e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== Polynomial ====
Fold 0: MSE Score - 157.4495992266823, R2 Score - -228.32412939580226
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b88cc42b7124491bba2259ece8b933b7>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 156.48503171597662, R2 Score - -215.35653289500152
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/7ca6d39e8cd74d54a1a117fec520ad8c>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 158.03055735654723, R2 Score - -226.57136180584743
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ea504919a81647728ebc6df92142f958>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 156.35802182886738
Test R2: -221.22988469662084
==== Polynomial ====
Fold 0: MSE Score - 86.95977486141163, R2 Score - -125.6562427627235
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/171b129d729e4279857eaa2fc66be799>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 85.5579897057628, R2 Score - -117.29265592509161
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/357d18bdda5f47ec896ba71e00fa9ae3>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 92.95011075753385, R2 Score - -132.85248801832415
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/9dd5c9ebb4bc42c5b03af0983b87f363>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 86.54742487232987
Test R2: -122.00887428224279
 View run method-batch-lr-0.0001-weight_init_mode-xavier-use_momentum-False-reg-Polynomial at: <http://localhost:5000/#/experiments/176410324244826153/runs/10cef8badd6a460b93ddb687c5486084>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== Ridge ====
Fold 0: MSE Score - 14.113016641585792, R2 Score - -19.555500111629772
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/06b804b0c8db4ab583d0e86728cc6272>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.215936092266324, R2 Score - -15.889778849818349
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/d1ee9673aee14509be6b3b7e662ace30>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 12.971407927213, R2 Score - -17.679431471439585
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/425c18c060c7418eaae312e4a585ca68>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 13.054879954180631
Test R2: -17.55475295102615
==== Ridge ====
Fold 0: MSE Score - 13.607641013645384, R2 Score - -18.819424399373208
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e6a4f3f14cdb414d9f53a92b333109e7>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 13.429994580201711, R2 Score - -17.568338660306797
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/3f0e18031f274659ba02cdb2050e19de>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 13.631447639932995, R2 Score - -18.629919394675444
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/0b60cf84ce99490d9c8a75d1c3829bf7>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 13.746198988535864
Test R2: -18.53731686106008
 View run method-stochastic-lr-0.01-weight_init_mode-zeros-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/0a98a5ee2d6d448383f404a4f656440d>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== Ridge ====
Fold 0: MSE Score - 14.111396652483748, R2 Score - -19.55314060997158
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/80edec02cc76483e99a9c27b40100166>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.272172629629262, R2 Score - -15.967531604266767
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/27e22d8fb47b45509a0095df93055e50>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 12.745486088972807, R2 Score - -17.354093503580607
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/53830c9cc4f04450b61d2b2bd51f17a1>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 12.85207518403731
Test R2: -17.266508829249
===== Ridge =====
Fold 0: MSE Score - 14.384701693430216, R2 Score - -19.95120729850153
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/522039a4679f435f90fe5d7215439e0c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 13.110027959295403, R2 Score - -17.125952139485648
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/3a39e0b966a04c1ea36d577a55eca04d>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 13.598222946983757, R2 Score - -18.58207428961149
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/92ceabfef5f74084af73b555f4ec40ee>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 13.64368859650897
Test R2: -18.391620002441112
 View run method-stochastic-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/8f4022576d954d858951f813d6063bcf>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Ridge =====
Fold 0: MSE Score - 14.171662432434436, R2 Score - -19.64091725460853
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/81b200237b3d4dc3803c6665a522df40>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.22422137659881, R2 Score - -15.901234101305146
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b5fdea131ab9461d8975ab4605808114>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 12.876995946190506, R2 Score - -17.543473822162927
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a35fffc8b9e70422da34fc624264b5fbd>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 13.005485553543904
Test R2: -17.4845492491005
===== Ridge =====
Fold 0: MSE Score - 14.072636364175214, R2 Score - -19.49668654838526
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/abdc55700ab944e58852a6e3b0d8ab37>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.2226507376324, R2 Score - -15.899062532577606
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/f1b4424b7d154e729da5c3a100bedaa3>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 12.833279825791353, R2 Score - -17.480520573003282
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/f17be29c07214954a4273b4c8c074bfe>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 12.922236358000886
Test R2: -17.36622811079101
 View run method-mini-batch-lr-0.01-weight_init_mode-zeros-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/16befc11561e4b4badfc8383700b191a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


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===== Ridge =====
Fold 0: MSE Score - 14.163123344118548, R2 Score - -19.628480138201166
🚀 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/7250aa7499304341884ed7b87b9c5441
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 12.213282361832492, R2 Score - -15.886109796557434
🚀 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/ba0aa23c3401409dad6905e6c7486c2b
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 12.936033952856835, R2 Score - -17.628491301061302
🚀 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/75ac1976ac7d4495b858d0ddfeaefd7c
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 13.092792919844763
Test R2: -17.60863821952404
===== Ridge =====
Fold 0: MSE Score - 14.09180133638207, R2 Score - -19.52460018289318
🚀 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/1004bfaf9faa40dbaba1190bf02abfb3
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 12.187242439143008, R2 Score - -15.850106944858645
🚀 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/e0d89d12d274446aba61eded1dcd6b0
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 12.808747352969132, R2 Score - -17.44519266970404
🚀 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/59db3e670a3643e181c699379657ba56
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 12.905953847175912
Test R2: -17.343085962656353
🚀 View run method-mini-batch-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-Ridge at: http://localhost:5000/#/experiments/176410324244826153/runs/6729fb336113436d9b2942a2dfa66b0e
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
===== Ridge =====
Fold 0: MSE Score - 44.315479626453, R2 Score - -63.5451549829765
🚀 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/53339366389448658e5c23351e3da7a2
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 43.10507471229333, R2 Score - -58.5971666597402
🚀 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/f5eea2c2707941e09becd790c30e941b
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 43.24324034215473, R2 Score - -61.27227985634893
🚀 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/6bef85d4c2434305ac10c34efcc650cc
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 43.213333153036345
Test R2: -60.41862075018229
===== Ridge =====
Fold 0: MSE Score - 14.281118434818076, R2 Score - -19.80033907960559
🚀 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/381c0ed34a1c498297abbc5dd898ede
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 12.412266647403928, R2 Score - -16.161225886925518
🚀 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/351bc49f0a4f4f068e3daaffb3b3511d
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 12.965558862781911, R2 Score - -17.671008546277907
🚀 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/7e4ca0bdf8a5463893f16ca340ac7ce7
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 13.132117313533287
Test R2: -17.664529534679776
```



 View run method-batch-lr-0.01-weight_init_mode-zeros-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/42169cf1142845f29cacc08bb91be2bd>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


==== Ridge ====


Fold 0: MSE Score - 44.285890122694425, R2 Score - -63.50205809850034

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e2cff8f6ae5844ebacda8ed5087d273a>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Fold 1: MSE Score - 43.0722432636341, R2 Score - -58.55177382999836

 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/bfa84a091b18460cbb7981b07b0029cc>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 2: MSE Score - 43.32411288419807, R2 Score - -61.388740082987134

 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/fce160de22164a6ab5b5c0f7180f7acf>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Test MSE: 43.29037000517846

Test R2: -60.528112355209565


==== Ridge ====


Fold 0: MSE Score - 14.280657295230432, R2 Score - -19.799667433345544

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/8bdf6bd508c845848bb5e2a57d333abd>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Fold 1: MSE Score - 12.410050059372143, R2 Score - -16.158161227666064

 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a3e7c412d7bd4f728bb6cc200b501392>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Fold 2: MSE Score - 12.965859656797354, R2 Score - -17.671441703667604


 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ea4c984e224a40ac8b9ce216c564db88>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Test MSE: 13.131847396843492


Test R2: -17.66414590514706


 View run method-batch-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/78099db576d64211a0c6c09b4f97f9bd>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


==== Ridge ====


Fold 0: MSE Score - 14.085205750577751, R2 Score - -19.51499376293492

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/16e4e3bcf00742dd83b636e8c72d0cb2>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Fold 1: MSE Score - 12.215655882978538, R2 Score - -15.889391431869644

 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6238df55232c49edb945e0b5708095a6>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 2: MSE Score - 12.802756639715268, R2 Score - -17.43656576364122

 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/12822eb712fd4e869c260ac96661b928>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Test MSE: 12.899630302834998

Test R2: -17.33409838073815


==== Ridge ====


Fold 0: MSE Score - 14.30532565479075, R2 Score - -19.835596709174613

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/1f560b17ef4642f48cbf4b275004bbe7>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>



























Fold 1: MSE Score - 12.314267448486845, R2 Score - -16.025731989063953







 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/1286a1fdadd54925a60ba49d5164fe0a>




























 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 2: MSE Score - 12.736361243240266, R2 Score - -17.340953300797306






 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a1face04e92d453082980e8ae89a24b2>


























 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 12.852827282760261
Test R2: -17.267577778641723
 View run method-stochastic-lr-0.001-weight_init_mode-zeros-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/37a68029cd8748329e724acbde960bce>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Ridge =====
Fold 0: MSE Score - 14.101957216382386, R2 Score - -19.539392143944585
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ab002781967e442b9357ed41f607cbc6>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.220687596736777, R2 Score - -15.896348289859926
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/4631e9a8a6514955a354128d04d23f93>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 12.797224406181833, R2 Score - -17.42859908972643
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a275f34a36c449478381d91190d54a97>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 12.892287488527009
Test R2: -17.323662121965324
===== Ridge =====
Fold 0: MSE Score - 14.103660742808382, R2 Score - -19.54187331707213
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6d223b3e2862417c941b3653803611f8>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.097850584463657, R2 Score - -15.726513579184019
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/956ef308d2cd4ca9823cbf25ffa98148>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 13.160200474166635, R2 Score - -17.951301530798414
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/05171dbbf6b44468afe8961b8f633a16>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 13.25277518704203
Test R2: -17.836019203095603
 View run method-stochastic-lr-0.001-weight_init_mode-xavier-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/6f7139dde2b245288b6b53a6a0a8296e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Ridge =====
Fold 0: MSE Score - 14.782535682655267, R2 Score - -20.530649441709176
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ab5acc074e7c4281a1fc0222140bbcb>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.5758773869154, R2 Score - -16.387434438356415
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/75431fca8e4c40499c7e6d3bac087704>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 13.385991899347035, R2 Score - -18.276451697778178
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6af841dcedc54712a752df6b435deac0>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 13.587061981907874
Test R2: -18.311137236757784
===== Ridge =====
Fold 0: MSE Score - 14.123570787091403, R2 Score - -19.57087214332422
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c46ee8999a34420cb1cc3faf3641742e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.25740254507839, R2 Score - -15.947110454403742
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/535bc9c33a77430c8be45c8bc2fc7d50>




























 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 12.873591489009822, R2 Score - -17.538571245283
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/0b9d5b2c6fda44a9938eb4e377f81852>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 13.004578996826622
Test R2: -17.483260770310626
 View run method-mini-batch-lr-0.001-weight_init_mode-zeros-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/e905dbde9b4b4ddeb2babfc9f25515a9>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Ridge =====
Fold 0: MSE Score - 14.491126547047006, R2 Score - -20.1062142786502
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/73ec02570e1d4e1c81b3a12c64450da5>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.747823268522783, R2 Score - -16.62516717472234
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/facc29447d484ac9a83f3e06d79f8369>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 13.353593800031367, R2 Score - -18.229796926039615
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/1946c9b58b09403da57af6c119407e8c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 13.55241225323397
Test R2: -18.261889970017616
===== Ridge =====
Fold 0: MSE Score - 14.120897544802649, R2 Score - -19.566978586506398
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c5a4608cd28543fa99608fd9a9fac538>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.256733595474937, R2 Score - -15.946185563279666
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/695062c9517e45f69bee6976c447099e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 12.834240383767415, R2 Score - -17.481903821220353
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6e286ec252894443896286f7b40e32db>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 12.944425257009206
Test R2: -17.39776494152401
 View run method-mini-batch-lr-0.001-weight_init_mode-xavier-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/63fa75bd91ed42acaa6d110469b44979>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Ridge =====
Fold 0: MSE Score - 143.76773348088832, R2 Score - -208.39659724535687
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/bfde29fbfd44a8eaeac0d4e16e60e1c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 143.33336099560745, R2 Score - -197.17300538675826
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/8da2fb4498c34035a4c5f06d4d8deb81>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 143.47281798046816, R2 Score - -205.6075391753018
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/933cb9bb12c04ab59438f611688b967f>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 143.1924762691864
Test R2: -202.51784397447446
===== Ridge =====
Fold 0: MSE Score - 44.3439308662278, R2 Score - -63.586593994721426
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/09c16600a8284a6bb323ce421d1f198f>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 42.82373368287274, R2 Score - -58.20818396267925
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/19b7d545dfdb4502985c44337029a323>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 42.96218402866845, R2 Score - -60.8675456766175
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/5f196a446aeb44839e784d6f5a715ef2>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 42.93281246638791
Test R2: -60.019919876893354
 View run method-batch-lr-0.001-weight_init_mode-zeros-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/bf58da7c6dff469b9c4078692cef9092>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Ridge =====
Fold 0: MSE Score - 143.7415045143409, R2 Score - -208.358394957463
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/0afe60f1260040cb9d8b2bc6241b337c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 142.91555778059669, R2 Score - -196.59534978583036
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6a1be33f0cf043dbb008d10b6d0a26fd>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 143.26481418827186, R2 Score - -205.30800402815873
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a8e7e78fbb654b1996ed8e161deff576>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 142.9914668542962
Test R2: -202.232151570775
===== Ridge =====
Fold 0: MSE Score - 44.33695775730309, R2 Score - -63.57643771524408
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6c1cce2286034d96919e60fd0887e13e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 42.86959900183058, R2 Score - -58.27159744881928
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/aa17bbabccce44a38bc922d554400221f>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 43.02290485144233, R2 Score - -60.95498648907661
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/354ccbf91923480c9d19250b8c092b76>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 42.98271854685271
Test R2: -60.090850823560686
 View run method-batch-lr-0.001-weight_init_mode-xavier-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/242f2cd8e6ad4b5d99ef3b97aea71358>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Ridge =====
Fold 0: MSE Score - 14.224421821957456, R2 Score - -19.71776089936371
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/5fb1e8dd9a7f4a168338e4670d4c7d29>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.336579820982134, R2 Score - -16.05658112205007
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/263b6112de0d4931bfb1426afc830108>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 12.993491545506965, R2 Score - -17.71123291017918
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/285dd1b9540f46ad9898d63671c4a8ef>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 13.165821739347876
Test R2: -17.71243325317744




























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===== Ridge =====
Fold 0: MSE Score - 14.142176730927957, R2 Score - -19.597971557313596
🚀 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/1fd50e2bd376433d83128c115e30ab0c
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 12.228616137399225, R2 Score - -15.907310306800674
🚀 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/4231f343f2b94ab8a9e3895ac173c080
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 12.805619445057278, R2 Score - -17.440688336649657
🚀 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/3c561ce0bbcd405998e4ee959c1338bb
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 12.899365362422706
Test R2: -17.333721823932258
🚀 View run method-stochastic-lr-0.0001-weight_init_mode-zeros-use_momentum-False-reg-Ridge at: http://localhost:5000/#/experiments/176410324244826153/runs/2c624966ba88427f885e592475b91e7d
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
===== Ridge =====
Fold 0: MSE Score - 14.183333776557232, R2 Score - -19.657916477489916
🚀 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/a19d3810825e4648ba0e615cd9bab395
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 12.31684425752581, R2 Score - -16.029294690643074
🚀 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/f34f8c34640c43aab8ab346fb73cafa1
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 12.917901333160332, R2 Score - -17.602379484293294
🚀 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/2e412d184e6445a093cb0202eb6a3eab
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 13.068611483481908
Test R2: -17.574269418026933
===== Ridge =====
Fold 0: MSE Score - 14.10647425409915, R2 Score - -19.545971174611747
🚀 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/df4f7acfaa854a4b983d120e2c83220d
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 12.203588847321758, R2 Score - -15.872707523074073
🚀 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/c4f0eddc69f74f528c7857fb99a3ec84
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 12.81060669513369, R2 Score - -17.44787020900738
🚀 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/c3cc471cfadd4116b3858e607a188f83
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 12.907410235376735
Test R2: -17.345155910703514
🚀 View run method-stochastic-lr-0.0001-weight_init_mode-xavier-use_momentum-False-reg-Ridge at: http://localhost:5000/#/experiments/176410324244826153/runs/176e700919e94534989b9bbb10d85ce97
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
===== Ridge =====
Fold 0: MSE Score - 58.1587180532221, R2 Score - -83.70772520118864
🚀 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/e5f0eaf377de4d65b5e3867b57ba2f39
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 56.75957517239593, R2 Score - -77.47590762023671
🚀 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/d3f70c1e0c1f401597d9f4f799bb244c
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 56.872725991168515, R2 Score - -80.89937389273416
🚀 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/a899a0002ccd4e33ad7ddf211d5880f9
```


























 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 56.77684034803555
Test R2: -79.6962798352115
==== Ridge ====
Fold 0: MSE Score - 14.42999754994835, R2 Score - -20.01718036488135
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/33833e62983840f6bf8ba3a7ce8b892a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.576712544312239, R2 Score - -16.38858912872405
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/71f479e234644755a684854466999b4e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 13.105493085896402, R2 Score - -17.872520344059897
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c69c8f5583a342e6ba3e28301f0a9fc5>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 13.294886235192767
Test R2: -17.895871158662263
 View run method-mini-batch-lr-0.0001-weight_init_mode-zeros-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/63d39ae8cf3045fc8fafaa47aaec50c1>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== Ridge ====
Fold 0: MSE Score - 58.29853696388867, R2 Score - -83.91137036839874
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/42e08a29179f4b2491b8e809b8a26f19>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 56.79921247169599, R2 Score - -77.53071023334188
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/973f9a64b933424a997eafce1aff1540>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 56.80556917740499, R2 Score - -80.80266495353688
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/d01f6ec5d19d4c599ffc95fe58c04a77>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 56.72280664309943
Test R2: -79.61948234265414
==== Ridge ====
Fold 0: MSE Score - 14.43109873420358, R2 Score - -20.01878423127336
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/8b0cf28ff3d54a53b6a137ca1c464c18>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 12.574226330022498, R2 Score - -16.385151683635126
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/9c45c96160b44d53bf4deb62f3936f29>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 13.106544468359793, R2 Score - -17.87403438376826
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/9736457cd2bb440c9e64ac6877f55c80>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 13.29674255356916
Test R2: -17.898509522936262
 View run method-mini-batch-lr-0.0001-weight_init_mode-xavier-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/ffeba15811d5476790d3a27f5de46d11>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== Ridge ====
Fold 0: MSE Score - 166.8515711463175, R2 Score - -242.018029130472
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/1d693c24601b4e54b4eea93dab6f4204>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 166.2093895768333, R2 Score - -228.8014504588991
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b5614987fa6e437a80d9f40184be3452>



























 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 166.36546324207765, R2 Score - -238.57401442330428
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/295e29865a2a4d999a9f731853102646>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 166.07553696578807
Test R2: -235.04127884932464
==== Ridge ====
Fold 0: MSE Score - 144.1399791106378, R2 Score - -208.93877013994003
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/d8bfd6cce5914eae2882e7c41d39b05>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 143.33034694236423, R2 Score - -197.16883815042573
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/8ff57416c8df48639fc28cf1f59ee780>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 143.4702546369486, R2 Score - -205.6038478412631
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/fada3b54586b4bcb9bc07c4cf2513ad7>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 143.19021454217656
Test R2: -202.51462940750355
 View run method-batch-lr-0.0001-weight_init_mode-zeros-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/38c7d2afe6f8482da7410f5a5e844e98>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== Ridge ====
Fold 0: MSE Score - 166.94276452382317, R2 Score - -242.15085158290037
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a26de6ae6f174f559d48e741d2650c43>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 165.67858263033912, R2 Score - -228.067555661929
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/2237589285f0423daa01217611aa3bd7>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 166.35252764283965, R2 Score - -238.55538655801286
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/2c4e55d76e2d49b19ff2dca538e46054>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 166.061681423633
Test R2: -235.02158612425995
==== Ridge ====
Fold 0: MSE Score - 144.16532779492414, R2 Score - -208.97569030349618
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/388272b9af404ef396e2ea0a7bbec2d5>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 143.5848047730252, R2 Score - -197.52065208052554
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e3b750a806d64de2bcb7dfed73036f79>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 143.51237607977998, R2 Score - -205.66450468046378
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/947ad6cc11e14f96920820ed870ffeb3>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 143.24137441462008
Test R2: -202.58734235450325
 View run method-batch-lr-0.0001-weight_init_mode-xavier-use_momentum-False-reg-Ridge at: <http://localhost:5000/#/experiments/176410324244826153/runs/778618a92cd14c028216f4cf04833279>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== Lasso ====
Fold 0: MSE Score - 11.61873075793637, R2 Score - -15.922591920427415
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a80cf477ef0e4553a4f90fc8cad98301>





















 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.865948527383186, R2 Score - -12.640681116258099
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/61a3019147b3477f955038d6737eb46d>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.44240999289209, R2 Score - -14.037556674914734
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/408ca3e14b0d40c9b0bb1eca10cf4df8>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.165793492038489
Test R2: -13.448527099287467
===== Lasso =====
Fold 0: MSE Score - 11.837969484463226, R2 Score - -16.241911438149597
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6654688f384540d787975f2e91d75821>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 10.276299408711992, R2 Score - -13.208033105014762
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/5d27d0887b73455995a27e3cc8a565c9>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.533147512257427, R2 Score - -14.168222928291703
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/9aa49acf57d6432d8da587870150b025>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.210215689815513
Test R2: -13.511663865629801
 View run method-stochastic-lr-0.01-weight_init_mode-zeros-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/0a6c32cc7e5c4e23a511ae464afdbe03>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Lasso =====
Fold 0: MSE Score - 11.58341666269856, R2 Score - -15.871157212523507
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/69f548104ef44ae08aa83ba274c4d588>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.857426633889386, R2 Score - -12.628898728448858
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/cbb67e6a5601479593b0f11aaa25ec91>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.49195680355924, R2 Score - -14.108906389585552
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/80712ad46f2442fd8d3ce9bbe6ed69ab>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.217400677748268
Test R2: -13.521875807563873
===== Lasso =====
Fold 0: MSE Score - 11.831160474110451, R2 Score - -16.231994166979227
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/814a77abf5ac4e3e90cfe7bf7a706b60>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.939092426885747, R2 Score - -12.741810025044197
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/f93c26b8cd144e3589da157924ae08d5>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 11.10821287153746, R2 Score - -14.9963438254639
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/885c85a43c4e42c8ad3100bcf7c82fe8>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.656105095225593
Test R2: -14.145401425063625
 View run method-stochastic-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/05d100793179430d9042974e379659b4>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


```
==== Lasso ====
Fold 0: MSE Score - 12.334510681225144, R2 Score - -16.96511986939265
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/96fb4137cc3b41baa7e95eadf4829bea
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 10.32503352801323, R2 Score - -13.275413000523521
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/7d9c574d1c1c492294fda8143c907bd2
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 10.788733405113659, R2 Score - -14.536278516202
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/852ec1ffbc844f5da627fa8a7a773488
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 10.83209822716331
Test R2: -14.395538469268
==== Lasso ====
Fold 0: MSE Score - 11.66090122550106, R2 Score - -15.98401288185243
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/cfad59a18eca42c99588dbef45ba9fb8
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 9.88329052088129, R2 Score - -12.664658192823145
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/85349aa4fc6c47bb8654cdeac9c80b26
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 10.52167594581419, R2 Score - -14.151703338402237
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/74d0d16902a049dfa10c6eaab49542f2
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 10.27886874667563
Test R2: -13.60923967742149
🔗 View run method-mini-batch-lr-0.01-weight_init_mode-zeros-use_momentum-False-reg-Lasso at: http://localhost:5000/#/experiments/176410324244826153/runs/138a2b4c4fe143ec98af5130fcd5d16
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
==== Lasso ====
Fold 0: MSE Score - 12.177828251149972, R2 Score - -16.73691311596118
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/1de31495e57e4be692b8d2c85c138517
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 10.129530753587481, R2 Score - -13.005110454763868
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/112bcef4266a4de897e3fc3cf99bfb89
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 11.058503547245593, R2 Score - -14.924760083605506
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/2b96f0f1f74c4f31ac71343d5bcd4f91
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 11.261199520035493
Test R2: -15.00541527458168
==== Lasso ====
Fold 0: MSE Score - 11.689929073098243, R2 Score - -16.02629171845254
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/5747bbe2765d42e1bb24359f3cbbbedd
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 9.917126846504123, R2 Score - -12.711440367561428
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/e5bebbca67454aa080daaf25f8d663b4
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 10.579041511253246, R2 Score - -14.234312424050618
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/f763f021749247afa5a97a0c0cfe01aa
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 10.393411123153838
Test R2: -13.772037459203926
```




















 View run method-mini-batch-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/e09332ef2ed34f73ac60138e736eec10>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 ===== Lasso =====
 Fold 0: MSE Score - 42.17213477260757, R2 Score - -60.423389700516644
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a082050a9e734b868b0ac2aab058cbba>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - 40.95548966991787, R2 Score - -55.625145873909176
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b70f368fa9814b3b919dc752bdc665f6>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 2: MSE Score - 41.08320851678587, R2 Score - -58.16173343883485
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/2f6ad4853e7e46c6969ef862d01579d6>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Test MSE: 41.07998301325728
 Test R2: -57.38651436999596
 ===== Lasso =====
 Fold 0: MSE Score - 12.38775667200658, R2 Score - -17.042672245135382
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/cb358d47bc3f48c8bea2d1f2d31cecf0>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - 10.438570574265611, R2 Score - -13.432389558683344
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/24414b474a684785bb7ae816d1d20bf2>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 2: MSE Score - 11.023371253709028, R2 Score - -14.87416794486211
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/307b7dbe59f246e38c1fcedd6fa608fa>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Test MSE: 11.216489339998079
 Test R2: -14.941869202315846
 View run method-batch-lr-0.01-weight_init_mode-zeros-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/a503fc9c9a334ea89677d3183291d37e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 ===== Lasso =====
 Fold 0: MSE Score - 42.21663104865622, R2 Score - -60.488198184096966
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/f364edac696a473790005ca9b6344df6>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - 40.9965158067574, R2 Score - -55.6818686967079
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/37a144dc9a2d48498c074ff05f38a1ba>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 2: MSE Score - 41.04538880119657, R2 Score - -58.107271287186876
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/03d91342b3774b8b8a0f7923d47a7e52>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Test MSE: 41.040224778592005
 Test R2: -57.33000644157592
 ===== Lasso =====
 Fold 0: MSE Score - 12.388418789003106, R2 Score - -17.043636613444555
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/606d1afd4cd64113a6c40ab2b381e69c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 1: MSE Score - 10.437329431812978, R2 Score - -13.430673552526487
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/4a9b0a3636ca44ff9422b4538deae214>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
 Fold 2: MSE Score - 11.020891096880042, R2 Score - -14.870596403531716
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/281a77f972424eafaf70955153735d53>










 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 11.211959224393233
Test R2: -14.935430600338462
 View run method-batch-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/ff6eb50fce4941b3a19d3a9133d667c6>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Lasso =====
Fold 0: MSE Score - 11.837767656734142, R2 Score - -16.241617477615637
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/246a3c2753844306a107ddb24c0ac237>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.968094722818035, R2 Score - -12.781908660198605
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e9eaedba42d34b27b97d51f0759a431c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.546713788257641, R2 Score - -14.187758997490251
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/7230cc6b4c3948f796bcd54a54df49de>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.341856235236849
Test R2: -13.698763081187815
===== Lasso =====
Fold 0: MSE Score - 11.608145643447498, R2 Score - -15.90717478264721
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a41bbe54f1c94e86b5f1ab5149704730>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.881780660177608, R2 Score - -12.662570656249065
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e4bf6b9b441c4cfbb7c5d391eef7972e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.413007371765055, R2 Score - -13.995215531262089
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/22a21d149cdf46c8a69a814c6e950d77>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.13536470568535
Test R2: -13.405279010039337
 View run method-stochastic-lr-0.001-weight_init_mode-zeros-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/8d9bdd55612d4caf9cfae360c30b884c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Lasso =====
Fold 0: MSE Score - 11.846147953271034, R2 Score - -16.253823315019105
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/85b22f52bada468485700b39d349aa65>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.95351103260675, R2 Score - -12.761745219540233
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/beac05929d6844028c35513d79ed378d>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.575804996907761, R2 Score - -14.22965169267419
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/79582f521543447595ea1cc6d9d9bb91>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.40674655060944
Test R2: -13.790990951139774
===== Lasso =====
Fold 0: MSE Score - 11.559862198261303, R2 Score - -15.836850316367606
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e349fdf3540b446b9096d266f80ab28a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.869082893613747, R2 Score - -12.645014697579144
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6d105d03945545b684592849c22d91d2>



















 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.460583997857796, R2 Score - -14.063728088397637
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/d56e2daaaa6e476bab5f5e84f33f6169>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.175355235688693
Test R2: -13.462117097191184
 View run method-stochastic-lr-0.001-weight_init_mode-xavier-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/ca67e0fee05f4ddeb9705b3ca9e15302>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Lasso =====
Fold 0: MSE Score - 12.54863737399262, R2 Score - -17.276993749291243
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/3de4ef61dcfe4661a456139dd457e310>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 10.600199924999313, R2 Score - -13.655858637836449
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/3e57f0e211754463a0f09fec8a9e2772>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 11.178388765266961, R2 Score - -15.097400380405567
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6ce753af6d7b4299bcc4287dea7dff73>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 11.411596994991259
Test R2: -15.219173501547889
===== Lasso =====
Fold 0: MSE Score - 11.757259080032965, R2 Score - -16.124357355318903
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e9807ca3826e4cbb956398ab70e83470>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.945498811450863, R2 Score - -12.750667505773832
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a4625fe6dfae4ddc85c7cfe44ffa6616>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.529570587035435, R2 Score - -14.163071989400752
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/97b8dcbcccec4742b304368aef021a22>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.303257790890617
Test R2: -13.643903549606375
 View run method-mini-batch-lr-0.001-weight_init_mode-zeros-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/37b36fff8dd1b4a22b59c7fb86fd2b709>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Lasso =====
Fold 0: MSE Score - 12.551606006202709, R2 Score - -17.281317539255898
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/af9c8fbd79fe4fee9dae5eda582d6c20>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 10.599856588357362, R2 Score - -13.65538393987554
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c856998da34941e48d10d046a852bcad>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 11.17661227141386, R2 Score - -15.09484214652883
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/afb26b9d11634cb2b7163b39e7e75ee2>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 11.409246852935734
Test R2: -15.215833271274374
===== Lasso =====
Fold 0: MSE Score - 11.769789899910363, R2 Score - -16.142608398021544
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/31ea337cf0814e63a1fdac266c2dd696>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.951161364170108, R2 Score - -12.758496563034047
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a6dbc4557b5e49ab8e49b74d763264ba>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.527414147731523, R2 Score - -14.159966616381432
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/056420e02cd34604bfaf388665eb211a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.299770102343105
Test R2: -13.638946537393597
 View run method-mini-batch-lr-0.001-weight_init_mode-xavier-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/2de6ceecba354fea9dbfc9a32c4d1568>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Lasso =====
Fold 0: MSE Score - 143.94118303922153, R2 Score - -208.64922519204086
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/9c0d589c268242fc83f57968e6243c2f>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 143.50899979549004, R2 Score - -197.41584395967308
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/03f16bff6d714443a8890ec00ffc37df>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 143.64564641896374, R2 Score - -205.85642017505984
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/49164d5ca53a443a84e736556fc9527a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 143.3680500723964
Test R2: -202.76738503150963
===== Lasso =====
Fold 0: MSE Score - 42.284092215627616, R2 Score - -60.58645485454722
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ac10022a08474b698a4ed1ba7dd1746d>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 40.71529402439785, R2 Score - -55.29305087088352
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ffbce7f0e32a45be981ec13bf64fef36>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 40.84237969767494, R2 Score - -57.81492872432945
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/1d52252db65d45f2950df5b4cc09e357>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 40.83915251590313
Test R2: -57.04422471301233
 View run method-batch-lr-0.001-weight_init_mode-zeros-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/c19e52a0db0f4ab6a1153aee145fa977>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== Lasso =====
Fold 0: MSE Score - 144.33108259754246, R2 Score - -209.21711089770736
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ba85200fe85548cb9a01cc7747d829ed>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 143.91305746901932, R2 Score - -197.97449494613343
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a8e834d07661425ea3bad12c66f81d8f>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 143.38975260473728, R2 Score - -205.48792116603707
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/73b7d36d5c984a8abc1b878fd7696b7e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 143.11285433076154
Test R2: -202.40467821560574


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==== Lasso ====
Fold 0: MSE Score - 42.21846579914656, R2 Score - -60.49087048406421
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/bf6b52feb8474016bc0b9aa306db6380
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 40.63344695542342, R2 Score - -55.17988894174089
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/ab27024cdde74eeba0d99cbf4ff0fdec
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 40.80294281365105, R2 Score - -57.758137774826885
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/f75f6ca44fd34c11b5fb16a158057fe5
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 40.79009815095938
Test R2: -56.97450429996409
🔗 View run method-batch-lr-0.001-weight_init_mode-xavier-use_momentum-False-reg-Lasso at: http://localhost:5000/#/experiments/176410324244826153/runs/174ba381589
4460f866b969d8248687c
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
==== Lasso ====
Fold 0: MSE Score - 11.921479321836069, R2 Score - -16.36354287351413
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/076349e734f54fd686ec32c6ede5f123
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 10.12006473347758, R2 Score - -12.992022715516002
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/c00eb2e09c43478b97b697a6607309fd
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 10.662284264932474, R2 Score - -14.354185865821188
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/d7197d64d93449479c45121b3e886290
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 10.59315719464384
Test R2: -14.055934287243934
==== Lasso ====
Fold 0: MSE Score - 11.660649020141037, R2 Score - -15.983645546686763
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/4a809cdfc9734bb9ae65ac5894380195
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 10.05635546758586, R2 Score - -12.903938150938373
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/bd5b59b8fe6845efa23deb9a1f211ad3
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 10.525296638240397, R2 Score - -14.15691730410542
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/35b3757a76e74fe4a692e48b7b47869b
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 10.297314107240034
Test R2: -13.635455859383049
🔗 View run method-stochastic-lr-0.0001-weight_init_mode-zeros-use_momentum-False-reg-Lasso at: http://localhost:5000/#/experiments/176410324244826153/runs/1d67fff
d1a7ab46e8989fa29186701047
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
==== Lasso ====
Fold 0: MSE Score - 11.984650102281343, R2 Score - -16.455550629011874
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/36a897f82a824c6397d9d350ac1d4c10
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 10.115038668265056, R2 Score - -12.985073667216867
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/ff2e873290af41d2bd43135e27c320be
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 10.664653904215266, R2 Score - -14.35759825673845
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/c60968a043fd4571b056bf0f0ed5aa85
```


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.599361391155885
Test R2: -14.064752241445323
==== Lasso ====
Fold 0: MSE Score - 11.804427491579998, R2 Score - -16.193057783685404
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/f07d800bee284a45b4a23d597fbecd1e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.954386722411098, R2 Score - -12.762955950099458
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/7d25f68093ed4b2eb9ddc28d609e3316>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.534952992337741, R2 Score - -14.170822903685469
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/4ea91ba204c049a987bec7d7f66b6b32>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.315854413068095
Test R2: -13.661806985971998
 View run method-stochastic-lr-0.0001-weight_init_mode-xavier-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/8c7098a5ba754f768b886d98c914ede4>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== Lasso ====
Fold 0: MSE Score - 56.700426554570775, R2 Score - -81.58373485776423
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/faafcbf4b84145ae89d8b2508e0af5ba>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 55.26635258761092, R2 Score - -75.4113749442235
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e62685d4af6246518d3d5adfe1b6b1bb>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 55.36649215734805, R2 Score - -78.73032702930256
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/81e6ba6c58ba4ce7970db5bf56e8e49d>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 55.28991780699174
Test R2: -77.58293367628761
==== Lasso ====
Fold 0: MSE Score - 12.54895801799109, R2 Score - -17.277460764807042
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/584d8e1972d84e9fa9403d14f4e579c8>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 10.60027235295591, R2 Score - -13.655958776881073
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/34d74dfd61fc4eb28e3b175d69783485>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 11.178126039517958, R2 Score - -15.097022043092316
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/7bdd2eead8a9481b9ec182b34cf118b2>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 11.411385186737906
Test R2: -15.218872460877446
 View run method-mini-batch-lr-0.0001-weight_init_mode-zeros-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/0785b4f278a24965bc80a3e698a4952f>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== Lasso ====
Fold 0: MSE Score - 56.58608633917334, R2 Score - -81.417199214106
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/073efa6ce9244f5691abc1c58c1a4869>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 55.14749046201977, R2 Score - -75.24703592020676
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/58b7de696247467abda6053a8479c54b>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 55.334988693951935, R2 Score - -78.68496057494983
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c723a8cd78cf4b2cb9702d927ded150f>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 55.2561062509043
Test R2: -77.53487769474707
==== Lasso ====
Fold 0: MSE Score - 12.547308810282175, R2 Score - -17.275058706472837
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/1cf6cce530894941a31774b06297f797>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 10.599781723588388, R2 Score - -13.655280431689015
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/781cec527d484eb986e2f7f41a9b9849>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 11.17785215216555, R2 Score - -15.096627632550383
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/9abfe89352ac4e599ce0fd4d00a6669e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 11.412072969431442
Test R2: -15.219849998626344
 View run method-mini-batch-lr-0.0001-weight_init_mode-xavier-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/ca1d7c6a5cc248d0992955e06cc0cf5e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== Lasso ====
Fold 0: MSE Score - 166.8836358156187, R2 Score - -242.06473107450984
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ea54f75c634443a8e7388493e4e3ed7>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 166.24107272667624, R2 Score - -228.84525564829036
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/11f94d2cca094ea0a3239a8d8d39d463>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 166.39686100500072, R2 Score - -238.61922866405357
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/44eff5e9c3094bf0be4a4566dc53c774>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 166.10723901089963
Test R2: -235.08633660681855
==== Lasso ====
Fold 0: MSE Score - 144.31675368158213, R2 Score - -209.19624094189973
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6f9f2a1450f14db1ab8b311fdc5aedb1>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 143.50632863895837, R2 Score - -197.41215081305276
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/76ef09950b5743569150fdc9ed303814>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 143.6435344548839, R2 Score - -205.85337884843432
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/afe473550b554aeb83945108eb98f496>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 143.36620268783295
Test R2: -202.7647593647628
 View run method-batch-lr-0.0001-weight_init_mode-zeros-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/81aa4fd4ddb44725aad5ec6733e34bef>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== Lasso ====
Fold 0: MSE Score - 167.12182022142292, R2 Score - -242.41164482827602
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/4c25414497f64f9d9fc9a043c383e4d5>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 165.38997299678476, R2 Score - -227.66852337755526
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/d02141ee4bfa4de7a580c3d299b7478f>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 166.75302919537097, R2 Score - -239.1321274443294
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e8fa47be494b4941bd638bab6820d4e8>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 166.48146935738436
Test R2: -235.61822595778702
===== Lasso =====
Fold 0: MSE Score - 144.47873248761366, R2 Score - -209.43216182614586
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ec7cfe29cf7846e7963870752a44d6a2>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 143.41349013921092, R2 Score - -197.28379210868164
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/29050eca7a304c50a14510bb1b6a510b>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 143.45211005264173, R2 Score - -205.57771879489903
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/81e1746e15444af3b8f79eba7b8b9a2a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 143.18007354406268
Test R2: -202.50021612179427
 View run method-batch-lr-0.0001-weight_init_mode-xavier-use_momentum-False-reg-Lasso at: <http://localhost:5000/#/experiments/176410324244826153/runs/d2eb63cadd9d4a03b89c72bed6cb5104>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== LinearRegression =====
Fold 0: MSE Score - 10.952523012482237, R2 Score - -14.952265466924958
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/f4e1dec66a5d47d9a7d134006a13c602>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.17763738441403, R2 Score - -11.689020687060653
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/724d7c1b162f4cdebd72494e92d8fe97>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.1900121278751, R2 Score - -13.674091995553939
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/3df450ad67e640309c537b329a20930a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 9.91802471813955
Test R2: -13.096376148469936
===== LinearRegression =====
Fold 0: MSE Score - 11.337163012002877, R2 Score - -15.512490665681288
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/df53a7d7960049c6a75a4f77fb2b125a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.535916674663678, R2 Score - -12.184378384831957
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/052617ed777548549b8bd2d31aacf654>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 11.287450970417398, R2 Score - -15.254455034662318
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ffcd15db8fca4a02829e93c49d1e67dc>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.82689183695643
Test R2: -14.388138685861765
 View run method-stochastic-lr-0.01-weight_init_mode-zeros-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/00f139999f494391a2c91114e42911a2>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


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==== LinearRegression ====
Fold 0: MSE Score - 11.224612168998837, R2 Score - -15.348561229141374
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/10cdc3745d5843919d1a7729ee83d332
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 9.198256203894616, R2 Score - -11.71752831009839
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/234013fb6e7a45c2924ce46123ed8eb3
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 10.215032867538964, R2 Score - -13.710123025842902
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/9de7d2f258d8413eae92a2c1502ce47a
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 9.901362793921736
Test R2: -13.072694744379255
==== LinearRegression ====
Fold 0: MSE Score - 11.07328170234459, R2 Score - -15.128149569238815
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/8dad7b7b26ba40d389d3b41395ef2103
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 9.42953663937559, R2 Score - -12.037297125034836
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/956cbae1cce74e0ebe0289993d27f552
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 10.401893983615686, R2 Score - -13.979211734795545
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/3b9b3dd19b2b43efb3d8ad055630603d
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 10.091115990855071
Test R2: -13.342388813043438
🔗 View run method-stochastic-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-LinearRegression at: http://localhost:5000/#/experiments/176410324244826153/runs/de8ae99d106544ec9a9f6cd2c5695aec
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
==== LinearRegression ====
Fold 0: MSE Score - 11.47552746314248, R2 Score - -15.714017423785226
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/cb624234278148b1bc753888521d8f4
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 9.51118036867774, R2 Score - -12.150177916320304
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/4ce18b2e33394730b6c088e2d0a7e587
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 10.402123896692265, R2 Score - -13.979542820332476
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/cafb1c53e43a4de79ab8e41468149e83
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 10.218679767446432
Test R2: -13.523693763258212
==== LinearRegression ====
Fold 0: MSE Score - 10.96042562081869, R2 Score - -14.963775555141211
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/9153c9121b08453aa4304f42d184f339
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 9.164548539756735, R2 Score - -11.670924022998921
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/bda66996739d47d78fd8780a19b01f1c
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 10.26077881962055, R2 Score - -13.77599932715103
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/c2d6cd6d038241bca3ae1cbdab83fb3c
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 9.96190309622352
Test R2: -13.158739990044676
```


 View run method-mini-batch-lr-0.01-weight_init_mode-zeros-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/922d456172504474b91e14c126535103>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


==== LinearRegression ====


Fold 0: MSE Score - 11.425101935459871, R2 Score - -15.640573030837043

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c9c3ef1d3d91439399f1d844e32edc74>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Fold 1: MSE Score - 9.575285930214324, R2 Score - -12.23881040008729

 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/88fa04510ee74940896dfbe97fd414bf>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 2: MSE Score - 11.054066555126488, R2 Score - -14.918370608330871

 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/001beb009bdf46969ef1c92a02b53f38>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Test MSE: 11.230864983015117

Test R2: -14.962301140842241


==== LinearRegression ====


Fold 0: MSE Score - 11.038061880412284, R2 Score - -15.076852169678766

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/ff87481ea5c24fefa9b9dda0d1cbf929>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Fold 1: MSE Score - 9.242238808413735, R2 Score - -11.778338751308642

 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/432a88e2bd444428b56c1dfb99806ed8>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Fold 2: MSE Score - 10.208668697766322, R2 Score - -13.70095832500181


 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/3261054c2edf4b0cb210aec18485fb7d>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Test MSE: 9.865327110712311


Test R2: -13.021477636162324


 View run method-mini-batch-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/a8d4467ae1ac4c3196789684dd38d8ea>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


==== LinearRegression ====


Fold 0: MSE Score - 41.087696901327504, R2 Score - -58.843914287834906

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/0338537557fa432abd127eb7f139a20e>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 1: MSE Score - 39.898203724694675, R2 Score - -54.16334010962182

 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/d51d4c85265c406e956d3bd41e6757c4>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 2: MSE Score - 40.04668731482507, R2 Score - -56.66909463899403

 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/77321727676241ad97c4920e8d7174d3>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>


Test MSE: 40.03068343073917

Test R2: -55.895156763218154


==== LinearRegression ====


Fold 0: MSE Score - 12.117245316210964, R2 Score - -16.64867453752486

 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/344087a2421c410fb1cba0ff8b1c731f>


 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>



























Fold 1: MSE Score - 10.156113381454446, R2 Score - -13.041863651778732

























 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b11f6a8a378c4e1f9d6328e0a92ac197>

























 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Fold 2: MSE Score - 10.913525898227052, R2 Score - -14.715985517657977












 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a2a8fcffc8604b078592de3cf9f14c2a>



























 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 11.05190891058317
Test R2: -14.707952902887179
 View run method-batch-lr-0.01-weight_init_mode-zeros-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/40af961a58c9441284f4c02e69db0945>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== LinearRegression =====
Fold 0: MSE Score - 41.17554585759205, R2 Score - -58.97186561646733
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/2dd646ceace5499bad637780da742272>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 39.83415570096688, R2 Score - -54.07478717774989
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e081d306834642889b153a4b86760420>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 39.99117716428856, R2 Score - -56.589157437208804
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/65a312b5c1ba48af8988b681647a9218>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 39.9649660050076
Test R2: -55.80175333068515
===== LinearRegression =====
Fold 0: MSE Score - 12.113176563601359, R2 Score - -16.642748430665858
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/880ca3d3f5f54cf184c8864659f6e67f>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 10.154386521212041, R2 Score - -13.039476091187511
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6dc9c35f04d6423588ff44af50032527>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.918134492875708, R2 Score - -14.722622108566402
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/beca9ec4195d4d4c8dd0a4ac7ef8b031>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 11.058682794491995
Test R2: -14.717580547330353
 View run method-batch-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/e5e76404fc944f01bafc5f8491d1be42>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== LinearRegression =====
Fold 0: MSE Score - 11.098276252387462, R2 Score - -15.164553938995066
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c262cb8f564049a6b3c5d01a2b629265>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.240053409231713, R2 Score - -11.775317213818258
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/42eee405ed7a4e19ab854adcc1e917c0>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.244364301682236, R2 Score - -13.752361656923869
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/d8236394e3154bbca5fd232fc01de91b>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 9.927593078506355
Test R2: -13.10997555063798
===== LinearRegression =====
Fold 0: MSE Score - 10.954282255870664, R2 Score - -14.954827791379437
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6b9f5c0dcbbd4c6887753bbc6567ec99>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.160847102918407, R2 Score - -11.66580640866681
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/51123c1c29dd4013b482e23180efa630>




























 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.16862254702364, R2 Score - -13.643290003051689
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/62d304a9a38a40509116fd94c77884dd>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 9.892825494556545
Test R2: -13.060560777529615
 View run method-stochastic-lr-0.001-weight_init_mode-zeros-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/97fa7d057f304007af8f8cd17c3a980c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== LinearRegression =====
Fold 0: MSE Score - 11.07245395388723, R2 Score - -15.12694395998179
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c3d35f9689ae44b8b12844786620722d>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.216046418513626, R2 Score - -11.742125098124822
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/614e4aaf857343e58b3a44b412f38ac0>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.228905813756898, R2 Score - -13.730100714436071
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/bb9170ad38224cd2a7df40dfc14b9ca4>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 9.898251026307602
Test R2: -13.068272024329442
===== LinearRegression =====
Fold 0: MSE Score - 10.964990561276437, R2 Score - -14.970424355781914
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c7729ca494cd4694bb24b105009da573>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.16978997458809, R2 Score - -11.678170841784537
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/9077f33c0ebd4e5089eb3a8d88e9eb36>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.202340070545691, R2 Score - -13.691844807090769
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/539d718723314c66991550379c3dae1a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 9.88569771950245
Test R2: -13.050430151611689
 View run method-stochastic-lr-0.001-weight_init_mode-xavier-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/80934da3fe384799855fe6e11b852541>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== LinearRegression =====
Fold 0: MSE Score - 12.295746140851861, R2 Score - -16.90865961470675
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/34e2e467a8d54b8da3e0bab99e08bb44>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 10.35186985848304, R2 Score - -13.312516967288925
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e5cee5711ab540d083cb5d40bb479a27>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 11.066366289587938, R2 Score - -14.93608279873293
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/24de8663ea5c4ffca2ce15015e32dc81>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 11.251174586870373
Test R2: -14.99116695066892
===== LinearRegression =====
Fold 0: MSE Score - 11.123327165967645, R2 Score - -15.201040401809582
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6d9ea3e10acb4b2db151c4e709297e3b>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.286173058250627, R2 Score - -11.839082337233878
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/afb34a33d3834b7784c3d182891e18a3>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.24483367317695, R2 Score - -13.753037573734085
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/35896a7aeae44cf78352b6679460d68a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 9.925751571148966
Test R2: -13.107358237097468
 View run method-mini-batch-lr-0.001-weight_init_mode-zeros-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/f64be4a619304f72b69494f9a048555d>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== LinearRegression =====
Fold 0: MSE Score - 12.29554191089681, R2 Score - -16.908362155349163
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b411c6fd10f04d9886cc42838047b477>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 10.346867181679986, R2 Score - -13.305600255853753
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/24f0d95463824a7481c5a5ec04d6f54b>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 11.072361827198232, R2 Score - -14.944716652093673
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e56d098099f84b95ac96b5dca3857d1a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 11.259322476997475
Test R2: -15.002747454580952
===== LinearRegression =====
Fold 0: MSE Score - 11.123438674684827, R2 Score - -15.201202813397884
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c5f1440f17b8423a8f7e9ae0559f7538>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.28692265925496, R2 Score - -11.840118737153881
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/26b5af0e599a4d37a589bae0dc87ac4c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.244252388786895, R2 Score - -13.752200497142988
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/fd5f35fddb3d47c9ac6ee1d4c8bddd27>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 9.925413730589748
Test R2: -13.106878068138798
 View run method-mini-batch-lr-0.001-weight_init_mode-xavier-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/27c6d9e588504e52a3ce0a54ec5a65dd>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== LinearRegression =====
Fold 0: MSE Score - 143.6401139200794, R2 Score - -208.21072033731693
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/0a1cf3c2d42f40c19f016877d7309db0>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 143.21258091905335, R2 Score - -197.00601459971952
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a003b7fbec9e4aaba8080866aef8fca>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 143.35189541435912, R2 Score - -205.43340504894798
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/45e1fdb188f345cc8a515b64c3a53e28>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 143.0716187298056
Test R2: -202.34607052321718

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==== LinearRegression ====
Fold 0: MSE Score - 41.20095324627466, R2 Score - -59.008871282524765
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/ae52c64370164ddc99d00eee9a67f437
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 39.654555336398225, R2 Score - -53.82647133719538
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/2b455c91151d49338032e67a08976128
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 39.803327482627324, R2 Score - -56.31864514777865
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/8bdee7e6d6d049e4bfa937f7288d0a89
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 39.787844745796036
Test R2: -55.55001289196953
🔗 View run method-batch-lr-0.001-weight_init_mode-zeros-use_momentum-False-reg-LinearRegression at: http://localhost:5000/#/experiments/176410324244826153/runs/16fc479403694671b94c043c08a1d438
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
==== LinearRegression ====
Fold 0: MSE Score - 143.33302106259646, R2 Score - -207.76344195406392
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/309bdb93119a453d99836414bd15cc80
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 143.13975105670843, R2 Score - -196.9053198793659
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/3745f4e04c0e4cd9b5d03509b8da7293
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 144.04251342218828, R2 Score - -206.42792714111985
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/a1f427b9204040bfb227c3b21f7da85
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 143.75193678174838
Test R2: -203.31299886160295
==== LinearRegression ====
Fold 0: MSE Score - 41.27110398685947, R2 Score - -59.11104529624151
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/046036e5611f4435ac82ec6535ddae84
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 39.624963742173, R2 Score - -53.78555793698579
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/93ffaaf2ecf240cb82e69348b567c85a
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 39.765663878713625, R2 Score - -56.2644078042134
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/99b3a306436f482bb8c4b0697e9ffff40
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Test MSE: 39.755771670664885
Test R2: -55.50442779371303
🔗 View run method-batch-lr-0.001-weight_init_mode-xavier-use_momentum-False-reg-LinearRegression at: http://localhost:5000/#/experiments/176410324244826153/runs/04bc00b926e746999bf1cb122a66a1c5
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
==== LinearRegression ====
Fold 0: MSE Score - 11.36455758707193, R2 Score - -15.552390653415358
🔗 View run Fold-0 at: http://localhost:5000/#/experiments/176410324244826153/runs/acd525749f1f47418e4183198c623529
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 1: MSE Score - 9.485651978368995, R2 Score - -12.114882310363468
🔗 View run Fold-1 at: http://localhost:5000/#/experiments/176410324244826153/runs/4fa350ae85a24143992ecf6845b72139
🔗 View experiment at: http://localhost:5000/#/experiments/176410324244826153
Fold 2: MSE Score - 10.383544308567098, R2 Score - -13.952787348212638
🔗 View run Fold-2 at: http://localhost:5000/#/experiments/176410324244826153/runs/70d114e288124cdf94aeca111fbc3c29
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 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.186129649998481
Test R2: -13.477430650162315
==== LinearRegression ====
Fold 0: MSE Score - 11.09238299768309, R2 Score - -15.155970458878091
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/7120ee15b3f84f1f836c52016ddc678c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.209250882055956, R2 Score - -11.732729575172751
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/f8dc6d03b3ca4f96b74905d98e7dd684>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.25744084370049, R2 Score - -13.771192486382322
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/c72cbebfa2b54b21afd239a622aa060f>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 9.949946394211475
Test R2: -13.141746064959099
 View run method-stochastic-lr-0.0001-weight_init_mode-zeros-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/22f2acf13c02483f8eb6c88e44e9a8d8>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== LinearRegression ====
Fold 0: MSE Score - 11.36305535656527, R2 Score - -15.550202666244964
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/9e443a0851674f7c87159f46c6c2ab5c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.48419512382527, R2 Score - -12.112868060217261
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/36aaec8e31d44f1ba5c28fcdfdb3dd99>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.383032571150714, R2 Score - -13.95205042250231
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/f33adea5a8154120967bfbfc1c3a63d73>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 10.185294763537014
Test R2: -13.476244035494924
==== LinearRegression ====
Fold 0: MSE Score - 11.078009485859718, R2 Score - -15.135035549539204
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/69c728ba077547cfba678faa9e2f8735>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 9.1879053470795, R2 Score - -11.703217193766985
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/14b3b576b02c46f286e99031370098da>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 10.26465421882993, R2 Score - -13.781580082483243
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/7df81bf39eee4365a6d83c70373e5a3c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 9.961829467584808
Test R2: -13.158635342494776
 View run method-stochastic-lr-0.0001-weight_init_mode-xavier-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/32a3e9b550c34d7cb029439b5db62b56>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== LinearRegression ====
Fold 0: MSE Score - 55.636994256839934, R2 Score - -80.0348539012786
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/4d5c0938a56342bdb24e8a7846e3c2b5>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 54.21788957098183, R2 Score - -73.96176777950613
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/8482b6fea6374a00bf5d7c9fc0bc0ba0>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 54.33628945265105, R2 Score - -77.24678715976322
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/2b544b5334c64c019a213243ee026c36>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 54.24905494958451
Test R2: -76.10356709131143
==== LinearRegression ====
Fold 0: MSE Score - 12.29581117824524, R2 Score - -16.90875434116962
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b054b1dc6aaf4e6da70a1d4fb2cd14b1>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 10.351880274550517, R2 Score - -13.312531368565653
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6d5b668883d842b89e79de0ad5ed2b6c>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 11.066271354248045, R2 Score - -14.935946087422508
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/7fef045336554d6d8168164bcfff47ac>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 11.251280659698047
Test R2: -14.991317710776958
 View run method-mini-batch-lr-0.0001-weight_init_mode-zeros-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/55b53f9d1cf44d128d480990061cf8d6>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== LinearRegression ====
Fold 0: MSE Score - 55.69346763930145, R2 Score - -80.11710694816239
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/1f2804264f634a2bb4b8344b178b3c11>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 54.02883372411533, R2 Score - -73.70037876930479
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/a7741b668f62419296434e24dfa4f02a>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 54.35959614207693, R2 Score - -77.2803498778891
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/9de330dfa85049a78b68bc8dfdc258e>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 54.260106232226875
Test R2: -76.11927415410639
==== LinearRegression ====
Fold 0: MSE Score - 12.296020682492731, R2 Score - -16.90905948249355
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/749cf8a00d4242b5b2b57ae885a3bd9b>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 10.351357294346304, R2 Score - -13.311808295038968
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b2f057b37428480c9548b877ad4887f7>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 11.073153926366308, R2 Score - -14.945857311782401
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6274147ec5ee43f2a028174f96d63c43>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 11.259071283571798
Test R2: -15.002390436211364
 View run method-mini-batch-lr-0.0001-weight_init_mode-xavier-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/c343b605b939442aa547adba668dbf53>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
==== LinearRegression ====
Fold 0: MSE Score - 166.85008937943263, R2 Score - -242.01587094840926
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/5a7ec1572d924a8a87cae7abc51abec1>

 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 166.2080012815151, R2 Score - -228.79953099888186
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/1487502059da470aade06ef2b8e990ce>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 166.36407278984532, R2 Score - -238.5720121073388
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/2f1b18c8f5714e718ed35c0739527b86>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 166.07414668052257
Test R2: -235.03930285263044
===== LinearRegression =====
Fold 0: MSE Score - 144.0201463409933, R2 Score - -208.76423463329678
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/b394eb8ec4c44062bbc430aede1105d6>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 143.20986615184827, R2 Score - -197.0022611568907
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/399c85fa0b454de6a4d31b4bd3aa8bfa>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 143.349696231942, R2 Score - -205.43023812385516
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/00363f38e2804f97a1522d157bbb886b>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 143.0697280293026
Test R2: -202.34338329201626
 View run method-batch-lr-0.0001-weight_init_mode-zeros-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/5be8fa4f18b944029e2d22ff68187a1>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
===== LinearRegression =====
Fold 0: MSE Score - 166.45936475462736, R2 Score - -241.44678353975874
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/520b54f8e074422b80a4f12ecb46ff0f>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 166.67681406687788, R2 Score - -229.44771253871141
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/e53761ce24074005927c5ac1ebee0e4>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 166.34374501818857, R2 Score - -238.54273916952351
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/75081eb295574b2c90c9942b61e58e96>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 166.0809398912679
Test R2: -235.04895796608733
===== LinearRegression =====
Fold 0: MSE Score - 144.37427840941328, R2 Score - -209.28002526522226
 View run Fold-0 at: <http://localhost:5000/#/experiments/176410324244826153/runs/6981aa49d5aa419e87fd7182cf0029ef>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 1: MSE Score - 142.67311610607462, R2 Score - -196.26014941839804
 View run Fold-1 at: <http://localhost:5000/#/experiments/176410324244826153/runs/1c52eeb636bd490ea0f4e33d2bfe79bb>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Fold 2: MSE Score - 143.18699039294273, R2 Score - -205.19593413876393
 View run Fold-2 at: <http://localhost:5000/#/experiments/176410324244826153/runs/736c56d79f84463181bbd39fd3dc51ee>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>
Test MSE: 142.89595618391468
Test R2: -202.09640333721515
 View run method-batch-lr-0.0001-weight_init_mode-xavier-use_momentum-False-reg-LinearRegression at: <http://localhost:5000/#/experiments/176410324244826153/runs/f3d370d2561f4cc7adfd8211df1b99>
 View experiment at: <http://localhost:5000/#/experiments/176410324244826153>

Perform the prediction on the test set

```
In [51]: best_model = joblib.load('method-batch-lr-0.01-weight_init_mode-xavier-use_momentum-False-reg-Polynomial.joblib')
```

```
In [52]: y_pred=best_model.predict(X_test,True)
y_pred
```

```
Out[52]: array([12.82661759, 14.06262702, 13.1518727 , ..., 11.83491208,
               13.67542873, 13.85056552], shape=(2409,))
```

```
In [53]: y_pred = np.exp(y_pred)
```

```
In [54]: y_pred
```

```
Out[54]: array([ 371988.26621838, 1280328.21861982,  514974.51610003, ...,
               137986.63125459,  869287.10349253, 1035676.63308913],
               shape=(2409,))
```

```
In [56]: y_test=np.exp(y_test)
```

```
In [57]: y_test
```

```
Out[57]: array([225000., 900000., 320000., ..., 150000., 650000., 300000.],
               shape=(2409,))
```

```
In [ ]: #display mse and r2
mse = best_model.mse(y_test, y_pred)
r2 = best_model.r2(y_test, y_pred)
print(f"Test MSE: {mse:.4f}")
print(f"Test R² : {r2:.4f}")
```

Feature importance

```
In [58]: coefs = best_model._coef()
print(coefs)
```

```
[ 1.25706601 -0.09521258  0.12593619  1.16826513  0.72752792  2.24233199
  1.40295171  0.58442913  0.33751488  0.18003627  0.06296529  0.27919168
  0.00588243  0.28942599  0.3064238  0.69982129  2.22745491  1.41581406
  0.56407736  0.33921204  0.17016865  0.0649241 ]
```

```
In [59]: coefs = np.ravel(best_model._coef())
BASE_FEATURES = [
    "year", "km_driven", "mileage", "max_power",
    "fuel_Petrol", "transmission_Manual",
    "seller_type_Individual", "seller_type_Trustmark Dealer",
    "owner_2", "owner_3", "owner_4"]
```

```
In [60]: def guess_degree_bias(n_coefs: int, n_base: int):
    for deg in range(1, 6):
        for inc_bias in (False, True):
            expect = (deg * n_base) + (1 if inc_bias else 0)
            if expect == n_coefs:
                return deg, inc_bias
    return None, None

DEGREE, INCLUDE_BIAS = guess_degree_bias(len(coefs), len(BASE_FEATURES))
print(f"degree = {DEGREE}, include_bias = {INCLUDE_BIAS}")
```

degree = 2, include_bias = False

```
In [61]: def my_poly_feature_names(base_feats, degree, include_bias=True):
    names = []
    if include_bias:
        names.append("bias")
    for d in range(1, degree + 1):
        for f in base_feats:
            names.append(f if d == 1 else f"{f}^{d}")
    return names

feature_names = my_poly_feature_names(BASE_FEATURES, DEGREE, INCLUDE_BIAS)
```

```
In [62]: import pandas as pd
import matplotlib.pyplot as plt

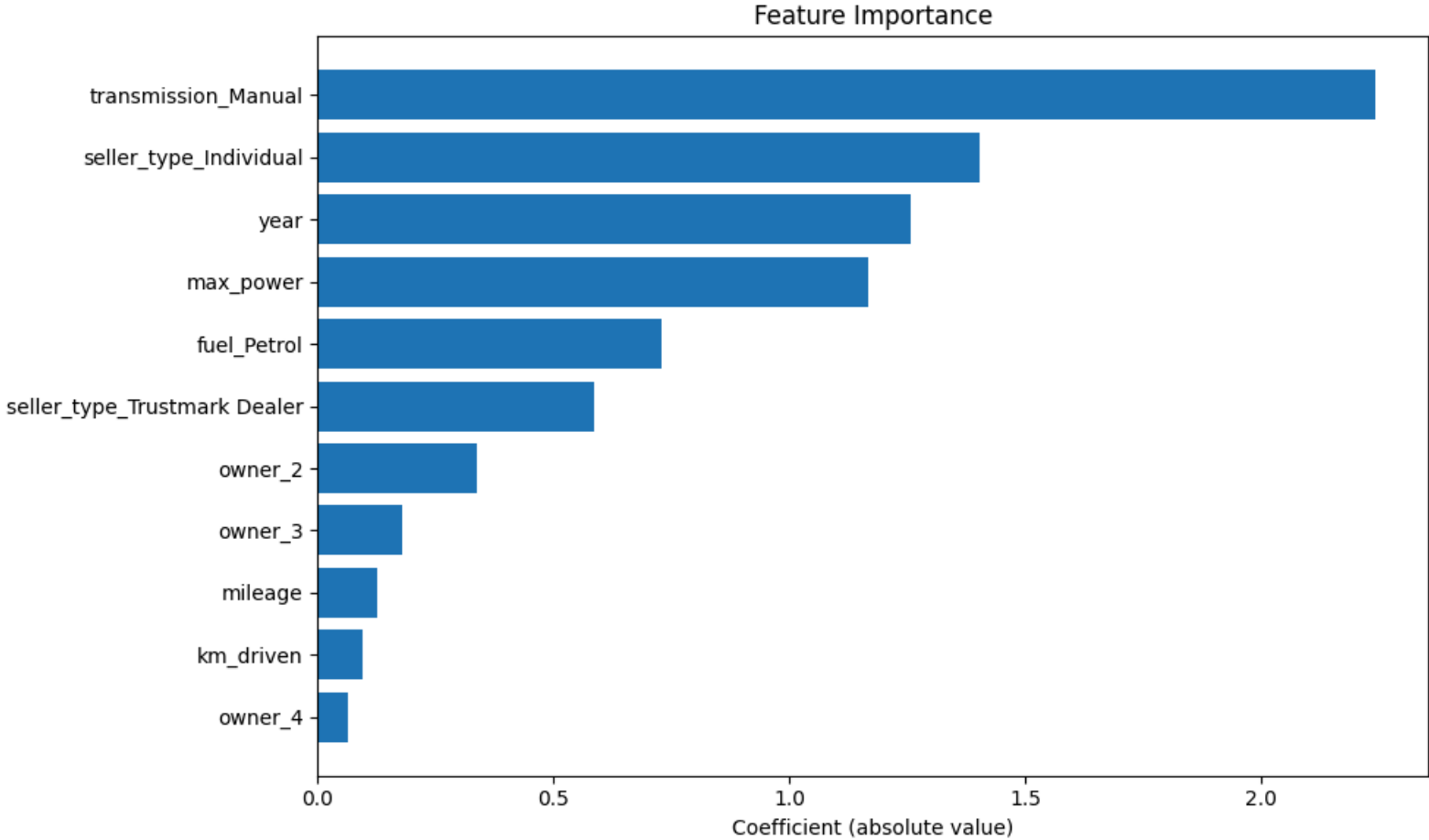
df_imp = (pd.DataFrame({"feature": feature_names, "coef": coefs})
          .assign(abs_coef=lambda d: d["coef"].abs()))
df_linear = df_imp[~df_imp["feature"].str.contains(r"\^")]

df_linear = df_linear.sort_values("abs_coef", ascending=False)

print(df_linear)

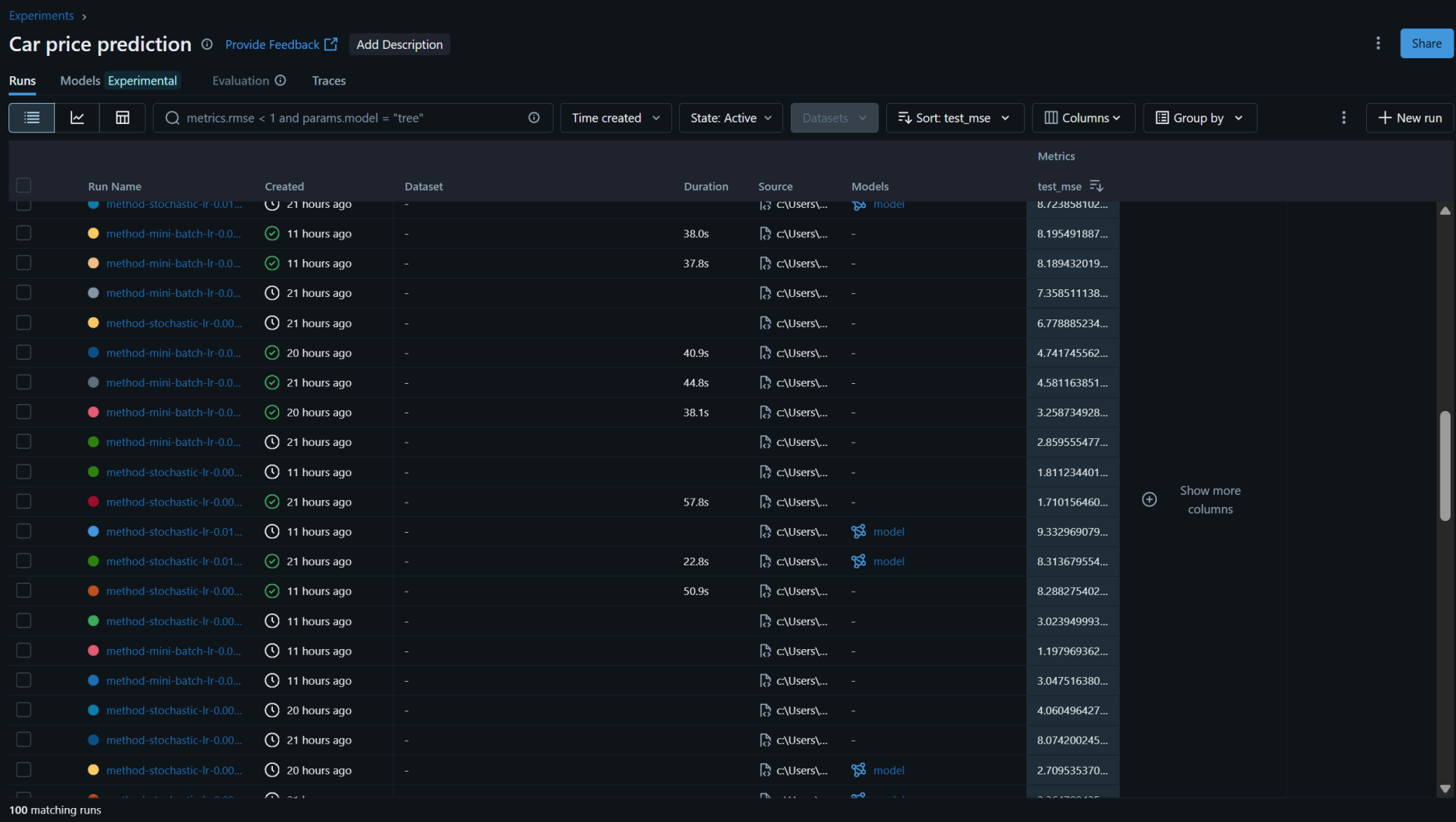
# plot
plt.figure(figsize=(10,6))
plt.barh(df_linear["feature"], df_linear["abs_coef"])
plt.gca().invert_yaxis()
plt.xlabel("Coefficient (absolute value)")
plt.title("Feature Importance")
plt.tight_layout()
plt.show()
```

	feature	coef	abs_coef
5	transmission_Manual	2.242332	2.242332
6	seller_type_Individual	1.402952	1.402952
0	year	1.257066	1.257066
3	max_power	1.168265	1.168265
4	fuel_Petrol	0.727528	0.727528
7	seller_type_Trustmark Dealer	0.584429	0.584429
8	owner_2	0.337515	0.337515
9	owner_3	0.180036	0.180036
2	mileage	0.125936	0.125936
1	km_driven	-0.095213	0.095213
10	owner_4	0.062965	0.062965



MLflow

```
In [2]: display(Image("assets/mlflow.png"))
```



Report and Discussion

1. Feature Importance (Polynomial)

The chart above shows the feature importance (measured by the absolute values of the regression coefficients) derived from the **Polynomial model**.

Observations:

- `transmission_Manual` has the largest coefficient magnitude, indicating that the type of transmission (manual vs. automatic) plays the most significant role in predicting car prices.
- `seller_type_Individual` and `year` follow, suggesting that the seller type (individual vs. dealer) and the car’s manufacturing year strongly.
- `max_power` and `fuel_Petrol` also contribute substantially, reflecting the importance of engine power and fuel type.
- Other features such as `owner_2` , `mileage` , and `km_driven` have smaller coefficients, meaning they have less impact on the model compared to the top features.

2. Result discussion/finding

```
In [1]: from IPython.display import Image, display

display(Image("assets/model1.png"))
display(Image("assets/model2.png"))
```

Car Price Prediction

Fill in the details, select model, and click Predict.

Choose Model

☒ Model 1: RandomForestRegressor ☐ Model 2: Polynomial

Year	km_driven	mileage
<input type="text" value="2015"/>	<input type="text" value="25"/>	<input type="text" value="20"/>
max_power (bhp)	fuel_Petrol (1=True, 0=False)	transmission_Manual (1=True, 0=False)
<input type="text" value="80"/>	<input type="text" value="0"/>	<input type="text" value="1"/>
seller_type_Individual (1=True, 0=False)	seller_type_Trustmark Dealer (1=True, 0=False)	owner_2 (1=True, 0=False)
<input type="text" value="0"/>	<input type="text" value="1"/>	<input type="text" value="0"/>
owner_3 (1=True, 0=False)	owner_4 (1=True, 0=False)	
<input type="text" value="1"/>	<input type="text" value="0"/>	

Predict Price

Estimated selling price ≈ 511,231

Car Price Prediction

Fill in the details, select model, and click Predict.

Choose Model

☐ Model 1: RandomForestRegressor ☒ Model 2: Polynomial

Year

2015

km_driven

25

mileage

20

max_power (bhp)

80

fuel_Petrol (1=True, 0=False)

0

transmission_Manual (1=True, 0=False)

1

seller_type_Individual (1=True, 0=False)

0

seller_type_Trustmark Dealer (1=True, 0=False)

1

owner_2 (1=True, 0=False)

0

owner_3 (1=True, 0=False)

1

owner_4 (1=True, 0=False)

0

Predict Price

Estimated selling price \approx 48,384



When I compared the results between the two models:

- Model 1: RandomForestRegressor
- Model 2: Polynomial Regression (degree = 2, batch gradient descent, learning rate = 0.01, Xavier initialization, not used momentum)

I found a very large gap in the predicted prices. RandomForest gave \approx 511,231, while Polynomial Regression gave only \approx 48,384. This suggests that RandomForest fits and generalizes better for this dataset, while Polynomial Regression may need feature scaling and careful tuning to work properly.

P.S. In the future, I will check my code again to find the error in my process.