File

Thu Nov 30 17, 17:49:19

File

File name: C:/Users/hp/Downloads/Data Science Assignment/Data Science Assignment/Automobiles-Data.xlsx
Format: Mircosoft Excel spreadsheet

Data

Data instances: 176
Features: symboling, normalized-losses, make, fuel-type, aspiration, num-of-doors, body-style, drive-wheels, engine-location, wheel-base, length, width, height, curb-weight, engine-type, num-of-cylinders, engine-size, fuel-system, bore, stroke, compression-ratio, horsepower, peak-rpm, city-mpg, highway-mpg, price (total: 26 features)

Train Data

Preprocess

Thu Nov 30 17, 17:49:48

Settings

Impute Missing Values: Remove rows with missing values.

Write a comment...

SVM

Thu Nov 30 17, 18:51:10

Name: SVM

Model parameters

SVM type: ν-SVM, ν=0.7500000000000001, C=1.0
Kernel: Polynomial, $(\text{auto } x \cdot y + 8.0)^{8.0}$
Numerical tolerance: 0.01
Iteration limt: 5

Data

Data instances: 165
Features: symboling, make, fuel-type, aspiration, num-of-doors, body-style, drive-wheels, engine-location, wheel-base, length, width, height, curb-weight, engine-type, num-of-cylinders, engine-size, fuel-system, bore, stroke, compression-ratio, horsepower, peak-rpm, city-mpg, highway-mpg (total: 24 features)
Target: price

Write a comment...

Random Forest

Thu Nov 30 17, 18:51:20

Name: Random Forest

Model parameters

Number of trees: 20
Maximal number of considered features: unlimited
Maximal tree depth: unlimited
Stop splitting nodes with maximum instances: 5

Data

Data instances: 165
Features: symboling, make, fuel-type, aspiration, num-of-doors, body-style, drive-wheels, engine-location, wheel-base, length, width, height, curb-weight, engine-type, num-of-cylinders, engine-size, fuel-system, bore, stroke, compression-ratio, horsepower, peak-rpm, city-mpg, highway-mpg (total: 24 features)
Target: price

Write a comment...

Linear Regression

Thu Nov 30 17, 18:51:24

Name: Linear Regression

Model parameters

Regularization: Elastic Net Regression with α=0.009 and L1:L2 ratio of 0.01:0.99

Data

Data instances: 165
Features: symboling, make, fuel-type, aspiration, num-of-doors, body-style, drive-wheels, engine-location, wheel-base, length, width, height, curb-weight, engine-type, num-of-cylinders, engine-size, fuel-system, bore, stroke, compression-ratio, horsepower, peak-rpm, city-mpg, highway-mpg (total: 24 features)
Target: price

Write a comment...

Neural Network

Thu Nov 30 17, 18:51:27

Name: Neural Network

Model parameters

Hidden layers: 25, 25, 25
Activation: ReLu
Solver: L-BFGS-B
Alpha: 0.0101
Max iterations: 36

Data

Data instances: 165
Features: symboling, make, fuel-type, aspiration, num-of-doors, body-style, drive-wheels, engine-location, wheel-base, length, width, height, curb-weight, engine-type, num-of-cylinders, engine-size, fuel-system, bore, stroke, compression-ratio, horsepower, peak-rpm, city-mpg, highway-mpg (total: 24 features)
Target: price

Write a comment...

Test & Score

Thu Nov 30 17, 18:51:42

Settings

Sampling type: Stratified 10-fold Cross validation

Scores

Method	MSE	RMSE	MAE	R2
SVM	13670491.079	3697.363	2380.640	0.762
Random Forest	5030189.353	2242.808	1465.016	0.912
Neural Network	6128912.145	2475.664	1710.477	0.893
Linear Regression	6065739.506	2462.872	1669.303	0.894

Write a comment...

Predictions

Thu Nov 30 17, 19:08:09

Info

Data: 165 instances.
Predictors: 4
Task: Regression

Data & Predictions

	Linear Regression	Random Forest	SVM	Neural Network	price	symboling	make	fuel-type	aspiration	num-of-doors	body-style	drive-wheels	engine-location	wheel-base	length	width	height	curb-weight	engine-type	num-of-cylinders	engine-size	fuel-system	bore	stroke	compression-ratio	horsepower	peak-rpm	city-mpg	highway-mpg
15	5093.9	5537.1	5005.4	5133.7	5151.0	2.0	chevrolet	gas	std	two	hatchback	fwd	front	88.4	141.1	60.3	53.2	1488.0	l	three	61.0	2bbl	2.91	3.03	9.50	48.0	5100.0	47.0	53.0
124	5620.7	5899.9	5577.9	5323.9	5348.0	1.0	toyota	gas	std	two	hatchback	fwd	front	95.7	158.7	63.6	54.5	1985.0	ohc	four	92.0	2bbl	3.05	3.03	9.00	62.0	4800.0	35.0	39.0
98	6292.2	5661.8	7036.5	5425.4	5572.0	1.0	plymouth	gas	std	two	hatchback	fwd	front	93.7	157.3	63.8	50.8	1918.0	ohc	four	90.0	2bbl	2.97	3.23	9.40	68.0	5500.0	37.0	41.0
27	5920.7	5742.5	6746.5	5596.7	5399.0	1.0	honda	gas	std	two	hatchback	fwd	front	93.7	150.0	64.0	52.6	1837.0	ohc	four	79.0	1bbl	2.91	3.07	10.10	60.0	5500.0	38.0	42.0
125	6052.4	6413.4	5786.3	5596.8	6338.0	1.0	toyota	gas	std	two	hatchback	fwd	front	95.7	158.7	63.6	54.5	2040.0	ohc	four	92.0	2bbl	3.05	3.03	9.00	62.0	4800.0	31.0	38.0
18	5949.2	5760.6	7001.2	5638.8	5572.0	1.0	dodge	gas	std	two	hatchback	fwd	front	93.7	157.3	63.8	50.8	1876.0	ohc	four	90.0	2bbl	2.97	3.23	9.41	68.0	5500.0	37.0	41.0
60	5883.4	5624.0	6983.9	5748.9	5389.0	2.0	mitsubishi	gas	std	two	hatchback	fwd	front	93.7	157.3	64.4	50.8	1918.0	ohc	four	92.0	2bbl	2.97	3.23	9.40	68.0	5500.0	37.0	41.0
43	5362.1	5629.8	7469.7	5878.4	5195.0	1.0	mazda	gas	std	two	hatchback	fwd	front	93.1	159.1	64.2	54.1	1890.0	ohc	four	91.0	2bbl	3.03	3.15	9.00	68.0	5000.0	30.0	31.0
19	5686.9	6157.8	7290.1	5934.4	6377.0	1.0	dodge	gas	std	two	hatchback	fwd	front	93.7	157.3	63.8	50.8	1876.0	ohc	four	90.0	2bbl	2.97	3.23	9.40	68.0	5500.0	31.0	38.0
112	6229.5	5816.0	7357.3	5984.3	5118.0	2.0	subaru	gas	std	two	hatchback	fwd	front	93.7	156.9	63.4	53.7	2050.0	ohcf	four	97.0	2bbl	3.62	2.36	9.00	69.0	4900.0	31.0	36.0
61	5817.6	6260.3	7295.8	6108.8	6189.0	2.0	mitsubishi	gas	std	two	hatchback	fwd	front	93.7	157.3	64.4	50.8	1944.0	ohc	four	92.0	2bbl	2.97	3.23	9.40	68.0	5500.0	31.0	38.0
62	6286.0	6516.2	7347.8	6149.2	6669.0	2.0	mitsubishi	gas	std	two	hatchback	fwd	front	93.7	157.3	64.4	50.8	2004.0	ohc	four	92.0	2bbl	2.97	3.23	9.40	68.0	5500.0	31.0	38.0
73	5402.7	6318.6	8743.3	6203.0	5499.0	1.0	nissan	gas	std	two	sedan	fwd	front	94.5	165.3	63.8	54.5	1889.0	ohc	four	97.0	2bbl	3.15	3.29	9.40	69.0	5200.0	31.0	37.0
75	5629.0	6735.7	8769.5	6227.7	6649.0	1.0	nissan	gas	std	two	sedan	fwd	front	94.5	165.3	63.8	54.5	1918.0	ohc	four	97.0	2bbl	3.15	3.29	9.40	69.0	5200.0	31.0	37.0
44	6664.6	6184.3	7217.5	6274.5	6095.0	1.0	mazda	gas	std	two	hatchback	fwd	front	93.1	159.1	64.2	54.1	1900.0	ohc	four	91.0	2bbl	3.03	3.15	9.00	68.0	5000.0	31.0	38.0
45	6703.7	6304.8	7221.8	6280.5	6795.0	1.0	mazda	gas	std	two	hatchback	fwd	front	93.1	159.1	64.2	54.1	1905.0	ohc	four	91.0	2bbl	3.03	3.15	9.00	68.0	5000.0	31.0	38.0
113	5321.8	7051.6	7539.9	6308.9	7053.0	2.0	subaru	gas	std	two	hatchback	fwd	front	93.7	157.9	63.6	53.7	2120.0	ohcf	four	108.0	2bbl	3.62	2.64	8.70	73.0	4400.0	26.0	31.0
100	6667.4	6340.5	7567.1	6387.7	6229.0	1.0	plymouth	gas	std	four	hatchback	fwd	front	93.7	157.3	63.8	50.6	1967.0	ohc	four	90.0	2bbl	2.97	3.23	9.40	68.0	5500.0	31.0	38.0
16	6193.6	6240.5	6878.9	6387.8	6295.0	1.0	chevrolet	gas	std	two	hatchback	fwd	front	94.5	155.9	63.6	52.0	1874.0	ohc	four	90.0	2bbl	3.03	3.11	9.60	70.0	5400.0	38.0	43.0
126	6041.0	6437.9	6069.5	6504.0	6488.0	1.0	toyota	gas	std	four	hatchback	fwd	front	95.7	158.7	63.6	54.5	2015.0	ohc	four	92.0	2bbl	3.05	3.03	9.00	62.0	4800.0	31.0	38.0
127	4788.6	7221.2	8489.7	6560.2	6918.0	0.0	toyota	gas	std	four	wagon	fwd	front	95.7	169.7	63.6	59.1	2280.0	ohc	four	92.0	2bbl	3.05	3.03	9.00	62.0	4800.0	31.0	37.0
21	6658.6	6374.1	7567.5	6751.8	6229.0	1.0	dodge	gas	std	four	hatchback	fwd	front	93.7	157.3	63.8	50.6	1967.0	ohc	four	90.0	2bbl	2.97	3.23	9.40	68.0	5500.0	31.0	38.0
25	4324.3	6275.7	4903.8	6753.8	6479.0	2.0	honda	gas	std	two	hatchback	fwd	front	86.6	144.6	63.9	50.8	1713.0	ohc	four	92.0	1bbl	2.91	3.41	9.60	58.0	4800.0	49.0	54.0
28	8101.8	6533.9	8018.6	6865.2	6529.0	1.0	honda	gas	std	two	hatchback	fwd	front	93.7	150.0	64.0	52.6	1940.0	ohc	four	92.0	1bbl	2.91	3.41	9.20	76.0	6000.0	30.0	34.0
29	8226.7	6697.9	8032.6	6878.4	7129.0	1.0	honda	gas	std	two	hatchback	fwd	front	93.7	150.0	64.0	52.6	1956.0	ohc	four	92.0	1bbl	2.91	3.41	9.20	76.0	6000.0	30.0	34.0
26	6757.1	6702.5	7095.7	6939.8	6855.0	2.0	honda	gas	std	two	hatchback	fwd	front	86.6	144.6	63.9	50.8	1819.0	ohc	four	92.0	1bbl	2.91	3.41	9.20	76.0	6000.0	31.0	38.0
74	7558.5	7207.5	8966.7	6947.4	7099.0	1.0	nissan	diesel	std	two	sedan	fwd	front	94.5	165.3	63.8	54.5	2017.0	ohc	four	103.0	idi	2.99	3.47	21.90	55.0	4800.0	45.0	50.0
38	6800.0	7614.5	10323.6	6971.8	6785.0	0.0	isuzu	gas	std	four	sedan	rwd	front	94.3	170.7	61.8	53.5	2337.0	ohc	four	111.0	2bbl	3.31	3.23	8.50	78.0	4800.0	24.0	29.0
17	6780.5	6433.1	8709.7	6979.1	6575.0	0.0	chevrolet	gas	std	four	sedan	fwd	front	94.5	158.8	63.6	52.0	1909.0	ohc	four	90.0	2bbl	3.03	3.11	9.60	70.0	5400.0	38.0	43.0
46	6583.7	6624.0	9021.3	7049.5	6695.0	1.0	mazda	gas	std	four	sedan	fwd	front	93.1	166.8	64.2	54.1	1945.0	ohc	four	91.0	2bbl	3.03	3.15	9.00	68.0	5000.0	31.0	38.0
22	7423.5	7117.0	8940.3	7052.4	7609.0	1.0	dodge	gas	std	four	sedan	fwd	front	93.7	157.3	63.8	50.6	1989.0	ohc	four	90.0	2bbl	2.97	3.23	9.40	68.0	5500.0	31.0	38.0
47	6528.4	6995.5	9052.7	7067.2	7395.0	1.0	mazda	gas	std	four	sedan	fwd	front	93.1	166.8	64.2	54.1	1950.0	ohc	four	91.0	2bbl	3.08	3.15	9.00	68.0	5000.0	31.0	38.0
120	8247.4	7722.2	10659.9	7139.5	7463.0	0.0	subaru	gas	std	four	wagon	fwd	front	97.0	173.5	65.4	53.0	2290.0	ohcf	four	108.0	2bbl	3.62	2.64	9.00	82.0	4800.0	28.0	32.0
130	7016.5	7125.0	8259.5	7247.4	6938.0	0.0	toyota	gas	std	four	sedan	fwd	front	95.7	166.3	64.4	53.0	2081.0	ohc	four	98.0	2bbl	3.19	3.03	9.00	70.0	4800.0	30.0	37.0
101	5784.4	6942.3	9212.9	7264.1	6692.0	1.0	plymouth	gas	std	four	sedan	fwd	front	93.7	167.3	63.8	50.8	1989.0	ohc	four	90.0	2bbl	2.97	3.23	9.40	68.0	5500.0	31.0	38.0
134	8565.1	7380.3	7684.8	7279.9	7738.0	0.0	toyota	gas	std	four	sedan	fwd	front	95.7	166.3	64.4	53.0	2094.0	ohc	four	98.0	2bbl	3.19	3.03	9.00	70.0	4800.0	38.0	47.0
31	6937.5	7302.4	10297.8	7356.6	7295.0	0.0	honda	gas	std	four	wagon	fwd	front	96.5	157.1	63.9	58.3	2024.0	ohc	four	92.0	1bbl	2.92	3.41	9.20	76.0	6000.0	30.0	34.0
102	7708.0	7538.9	9450.4	7427.3	7609.0	1.0	plymouth	gas	std	four	sedan	fwd	front	93.7	167.3	63.8	50.8	2191.0	ohc	four	98.0	2bbl	2.97	3.23	9.40	68.0	5500.0	31.0	38.0
115	8231.6	7350.0	10209.1	7463.3	7126.0	0.0	subaru	gas	std	four	sedan	fwd	front	97.2	172.0	65.4	52.5	2145.0	ohcf	four	108.0	2bbl	3.62	2.64	9.50	82.0	4800.0	32.0	37.0
114	6450.7	7466.7	7902.1	7466.9	7603.0	2.0	subaru	gas	std	two	hatchback	4wd	front	93.3	157.3	63.8	55.7	2240.0	ohcf	four	108.0	2bbl	3.62	2.64	8.70	73.0	4400.0	26.0	31.0
132	6871.9	7887.7	9778.3	7500.1	7898.0	0.0	toyota	diesel	std	four	sedan	fwd	front	95.7	166.3	64.4	53.0	2275.0	ohc	four	110.0	idi	3.27	3.35	22.50	56.0	4500.0	34.0	36.0
131	6719.6	7159.3	6799.2	7509.7	7198.0	0.0	toyota	gas	std	four	hatchback	fwd	front	95.7	166.3	64.4	52.8	2109.0	ohc	four	98.0	2bbl	3.19	3.03	9.00	70.0	4800.0	30.0	37.0
30	7594.8	7210.1	10325.2	7521.1	7295.0	0.0	honda	gas	std	four	sedan	fwd	front	96.5	163.4	64.0	54.5	2010.0	ohc	four	92.0	1bbl	2.91	3.41	9.20	76.0	6000.0	30.0	34.0
148	8934.1	7760.9	10414.5	7530.4	7775.0	2.0	volkswagen	diesel	std	two	sedan	fwd	front	97.3	171.7	65.5	55.7	2261.0	ohc	four	97.0	idi	3.01	3.40	23.00	52.0	4800.0	37.0	46.0
63	7349.2	8115.3	8966.5	7587.9	7689.0	1.0	mitsubishi	gas	turbo	two	hatchback	fwd	front	93.0	157.3	63.8	50.8	2145.0	ohc	four	98.0	spdi	3.03	3.39	7.60	102.0	5500.0	24.0	30.0
99	8275.4	8157.0	8973.3	7726.3	7957.0	1.0	plymouth	gas	turbo	two	hatchback	fwd	front	93.7	157.3	63.8	50.8	2128.0	ohc	four	98.0	spdi	3.03	3.39	7.60	102.0	5500.0	24.0	30.0
133	8169.0	7813.6	7857.7	7778.0	7788.0	0.0	toyota	diesel	std	four	hatchback	fwd	front	95.7	166.3	64.4	52.8	2275.0	ohc	four	110.0	idi	3.27	3.35	22.50	56.0	4500.0	38.0	47.0
69	8098.2	7846.5	10880.1	7781.3	6989.0	1.0	mitsubishi	gas	std	four	sedan	fwd	front	96.3	172.4	65.4	51.6	2365.0	ohc	four	122.0	2bbl	3.35	3.46	8.50	88.0	5000.0	25.0	32.0
122	9077.6	8428.6	11362.7	7801.5	8013.0	0.0	subaru	gas	std	four	wagon	4wd	front	96.9	173.6	65.4	54.9	2420.0	ohcf	four	108.0	2bbl	3.62	2.64	9.00	82.0	4800.0	23.0	29.0
128	5063.1	7911.3	8947.0	7803.3	7898.0	0.0	toyota	gas	std	four	wagon	4wd	front	95.7	169.7	63.6	59.1	2290.0	ohc	four	92.0	2bbl	3.05	3.03	9.00	62.0	4800.0	27.0	32.0
76	6226.5	7443.0	8909.4	7804.3	7499.0	1.0	nissan	gas	std	four	sedan	fwd	front	94.5	165.3	63.8	54.5	1971.0	ohc	four	97.0	2bbl	3.15	3.29	9.40	69.0	5200.0	31.0	37.0
20	8669.7	7997.4	8815.8	7819.4	7957.0	1.0	dodge	gas	turbo	two	hatchback	fwd	front	93.7	157.3	63.8	50.8	2128.0	ohc	four	98.0	mpfi	3.03	3.39	7.60	102.0	5500.0	24.0	30.0
70	8410.4	8203.9	10918.5	7861.5	8189.0	1.0	mitsubishi	gas	std	four	sedan	fwd	front	96.3	172.4	65.4	51.6	2405.0	ohc	four	122.0	2bbl	3.35	3.46	8.50	88.0	5000.0	25.0	32.0
116	7067.5	7528.9	10206.5	7866.0	7775.0	0.0	subaru	gas	std	four	sedan	fwd	front	97.2	172.0	65.4	52.5	2190.0	ohcf	four	108.0	2bbl	3.62	2.64	9.50	82.0	4400.0	28.0	33.0
150	9141.2	7824.6	10631.8	8002.7	7995.0	2.0	volkswagen	diesel	std	four	sedan	fwd	front	97.3	171.7	65.5	55.7	2264.0	ohc	four	97.0	idi	3.01	3.40	23.00	52.0	4800.0	37.0	46.0
77	6149.5	7776.6	9012.1	8120.4	7999.0	1.0	nissan	gas	std	four	wagon	fwd	front	94.5	170.2	63.8	53.5	2037.0	ohc	four	97.0	2bbl	3.15	3.29	9.40	69.0	5200.0	31.0	37.0
149	8605.3	8159.0	10556.6	8340.6	7975.0	2.0	volkswagen	gas	std	two	sedan	fwd	front	97.3	171.7	65.5	55.7	2209.0	ohc	four	109.0	mpfi	3.19	3.40	9.00	85.0	5250.0	27.0	34.0
65	7808.2	8498.9	8737.0	8358.4	8499.0	3.0	mitsubishi	gas	std	two	hatchback	fwd	front	96.3	173.0	65.4	49.4	2328.0	ohc	four	122.0	2bbl	3.35	3.46	8.50	88.0	5000.0	25.0	32.0
78	6854.3	7770.8	8442.4	8477.1	8249.0	2.0	nissan	gas	std	two	hardtop	fwd	front	95.1	162.4	63.8	53.3	2008.0	ohc	four	97.0	2bbl	3.15	3.29	9.40	69.0	5200.0	31.0	37.0
32	9039.0	8610.0	9712.2	8685.8	7895.0	0.0	honda	gas	std	two	hatchback	fwd	front	96.5	167.5	65.2	53.3	2236.0	ohc	four	110.0	1bbl	3.15	3.58	9.00	86.0	5800.0	27.0	33.0
33	9452.7	9071.5	9763.2	8757.2	9095.0	0.0	honda	gas	std	two	hatchback	fwd	front	96.5	167.5	65.2	53.3	2289.0	ohc	four	110.0	1bbl	3.15	3.58	9.00	86.0	5800.0	27.0	33.0
23	8313.2	9706.2	12110.5	8804.6	8921.0	-1.0	dodge	gas	std	four	wagon	fwd	front	103.3	174.6	64.6	59.8	2535.0	ohc	four	122.0	2bbl	3.34	3.46	8.50	88.0	5000.0	24.0	30.0
151	8812.5	8158.1	10590.3	8810.2	8195.0	2.0	volkswagen	gas	std	four	sedan	fwd	front	97.3	171.7	65.5	55.7	2212.0	ohc	four	109.0	mpfi	3.19	3.40	9.00	85.0	5250.0	27.0	34.0
103	8303.2	9634.4	12117.5	8906.8	8921.0	-1.0	plymouth	gas	std	four	wagon	fwd	front	103.3	174.6	64.6	59.8	2535.0	ohc	four	122.0	2bbl	3.35	3.46	8.50	88.0	5000.0	24.0	30.0
152	9304.2	8546.0	10651.0	8919.8	8495.0	2.0	volkswagen	gas	std	four	sedan	fwd	front	97.3	171.7	65.5	55.7	2275.0	ohc	four	109.0	mpfi	3.19	3.40	9.00	85.0	5250.0	27.0	34.0
80	10615.0	9208.8	10825.1	8959.1	9549.0	0.0	nissan	gas	std	four	sedan	fwd	front	97.2	173.4	65.2	54.7	2302.0	ohc	four	120.0	2bbl	3.33	3.47	8.50	97.0	5200.0	27.0	34.0
118	8764.3	9713.5	11421.1	9092.3	9233.0	0.0	subaru	gas	std	four	sedan	4wd	front	97.0	172.0	65.4	54.3	2385.0	ohcf	four	108.0	2bbl	3.62	2.64	9.00	82.0	4800.0	24.0	25.0
34	8795.6	9492.6	11575.3	9108.9	8845.0	0.0	honda	gas	std	four	sedan	fwd	front	96.5	175.4	65.2	54.1	2304.0	ohc	four	110.0	1bbl	3.15	3.58	9.00	86.0	5800.0	27.0	33.0
129	11463.8	11911.7	9719.9	9207.3	8778.0	0.0	toyota	gas	std	four	wagon	4wd	front	95.7	169.7	63.6	59.1	3110.0	ohc	four	92.0	2bbl	3.05	3.03	9.00	62.0	4800.0	27.0	32.0
79	10193.6	9341.1	9424.9	9270.7	8949.0	0.0	nissan	gas	std	four	hatchback	fwd	front	97.2	173.4	65.2	54.7	2324.0	ohc	four	120.0	2bbl	3.33	3.47	8.50	97.0	5200.0	27.0	34.0
72	9227.5	9352.9	11991.8	9323.3	9279.0	-1.0	mitsubishi	gas	std	four	sedan	fwd	front	96.3	172.4	65.4	51.6	2403.0	ohc	four	110.0	spdi	3.17	3.46	7.50	116.0	5500.0	23.0	30.0
49	10943.2	9617.9	11580.1	9373.8	8495.0	0.0	mazda	gas	std	four	sedan	fwd	front	98.8	177.8	66.5	55.5	2410.0	ohc	four	122.0	2bbl	3.39	3.39	8.60	84.0	4800.0	26.0	32.0
51	10943.2	9617.9	11580.1	9373.8	10245.0	0.0	mazda	gas	std	four	sedan	fwd	front	98.8	177.8	66.5	55.5	2410.0	ohc	four	122.0	2bbl	3.39	3.39	8.60	84.0	4800.0	26.0	32.0
71	10149.5	9327.2	12034.2	9385.0	9279.0	1.0	mitsubishi	gas	turbo	four	sedan	fwd	front	96.3	172.4	65.4	51.6	2403.0	ohc	four	110.0	spdi	3.17	3.46	7.50	116.0	5500.0	23.0	30.0
138	10528.9	9641.4	10700.8	9424.4	9639.0	2.0	toyota	gas	std	two	hardtop	rwd	front	98.4	176.2	65.6	52.0	2536.0	ohc	four	146.0	mpfi	3.62	3.50	9.30	116.0	4800.0	24.0	30.0
154	9569.0	9715.0	11167.6	9435.8	9995.0	2.0	volkswagen	gas	std	four	sedan	fwd	front	97.3	171.7	65.5	55.7	2300.0	ohc	four	109.0	mpfi	3.19	3.40	10.00	100.0	5500.0	26.0	32.0
137	10560.1	9379.2	10705.6	9442.2	8449.0	2.0	toyota	gas	std	two	hardtop	rwd	front	98.4	176.2	65.6	52.0	2540.0	ohc	four	146.0	mpfi	3.62	3.50	9.30	116.0	4800.0	24.0	30.0
136	10061.4	9555.9	9095.9	9481.4	9538.0	1.0	toyota	gas	std	two	hatchback	rwd	front	94.5	168.7	64.0	52.6	2300.0	dohc	four	98.0	mpfi	3.24	3.08	9.40	112.0	6600.0	26.0	29.0
135	10381.3	9540.0	10832.2	9597.4	9298.0	1.0	toyota	gas	std	two	sedan	rwd	front	94.5	168.7	64.0	52.6	2265.0	dohc	four	98.0	mpfi	3.24	3.08	9.40	112.0	6600.0	26.0	29.0
35	7973.2	9876.8	11106.6	9777.5	10295.0	0.0	honda	gas	std	four	sedan	fwd	front	96.5	175.4	62.5	54.1	2372.0	ohc	four	110.0	1bbl	3.15	3.58	9.00	86.0	5800.0	27.0	33.0
121	9860.0	9975.3	11368.6	9856.1	10198.0	0.0	subaru	gas	std	four	wagon	fwd	front	97.0	173.5	65.4	53.0	2455.0	ohcf	four	108.0	mpfi	3.62	2.64	9.00	94.0	5200.0	25.0	31.0
117	9811.5	9656.4	11209.0	9903.5	9960.0	0.0	subaru	gas	std	four	sedan	fwd	front	97.2	172.0	65.4	52.5	2340.0	ohcf	four	108.0	mpfi	3.62	2.64	9.00	94.0	5200.0	26.0	32.0
153	9469.9	9088.5	11470.8	9952.0	9495.0	2.0	volkswagen	diesel	turbo	four	sedan	fwd	front	97.3	171.7	65.5	55.7	2319.0	ohc	four	97.0	idi	3.01	3.40	23.00	68.0	4500.0	37.0	42.0
48	10677.9	9776.8	9692.5	9988.3	8845.0	1.0	mazda	gas	std	two	hatchback	fwd	front	98.8	177.8	66.5	53.7	2385.0	ohc	four	122.0	2bbl	3.39	3.39	8.60	84.0	4800.0	26.0	32.0
50	10677.9	9776.8	9692.5	9988.3	10595.0	1.0	mazda	gas	std	two	hatchback	fwd	front	98.8	177.8	66.5	53.7	2385.0	ohc	four	122.0	2bbl	3.39	3.39	8.60	84.0	4800.0	26.0	32.0
37	12492.9	10105.4	11166.5	10036.0	10345.0	1.0	honda	gas	std	two	sedan	fwd	front	96.5	169.1	66.0	51.0	2293.0	ohc	four	110.0	2bbl	3.15	3.58	9.10	100.0	5500.0	25.0	31.0
156	9254.7	9428.9	8510.4	10037.0	9980.0	3.0	volkswagen	gas	std	two	hatchback	fwd	front	94.5	165.7	64.0	51.4	2221.0	ohc	four	109.0	mpfi	3.19	3.40	8.50	90.0	5500.0	24.0	29.0
140	11645.1	12127.3	10872.7	10060.8	11199.0	2.0	toyota	gas	std	two	hardtop	rwd	front	98.4	176.2	65.6	52.0	2679.0	ohc	four	146.0	mpfi	3.62	3.50	9.30	116.0	4800.0	24.0	30.0
64	9890.7	9519.7	9957.7	10212.4	9959.0	3.0	mitsubishi	gas	turbo	two	hatchback	fwd	front	96.3	173.0	65.4	49.4	2370.0	ohc	four	110.0	spdi	3.17	3.46	7.50	116.0	5500.0	23.0	30.0
52	10467.1	10483.2	10146.4	10279.6	11245.0	0.0	mazda	gas	std	four	hatchback	fwd	front	98.8	177.8	66.5	55.5	2425.0	ohc	four	122.0	2bbl	3.39	3.39	8.60	84.0	4800.0	26.0	32.0
139	10677.7	10912.9	8963.6	10696.6	9989.0	2.0	toyota	gas	std	two	hatchback	rwd	front	98.4	176.2	65.6	52.0	2551.0	ohc	four	146.0	mpfi	3.62	3.50	9.30	116.0	4800.0	24.0	30.0
155	11825.0	9924.3	15111.7	10952.9	11595.0	3.0	volkswagen	gas	std	two	convertible	fwd	front	94.5	159.3	64.2	55.6	2254.0	ohc	four	109.0	mpfi	3.19	3.40	8.50	90.0	5500.0	24.0	29.0
39	11051.8	11472.2	9903.3	10982.0	11048.0	2.0	isuzu	gas	std	two	hatchback	rwd	front	96.0	172.6	65.2	51.4	2734.0	ohc	four	119.0	spfi	3.43	3.23	9.20	90.0	5000.0	24.0	29.0
143	8974.2	11206.4	8493.5	11217.1	11248.0	-1.0	toyota	gas	std	four	hatchback	fwd	front	102.4	175.6	66.5	53.9	2458.0	ohc	four	122.0	mpfi	3.31	3.54	8.70	92.0	4200.0	27.0	32.0
141	11950.0	12332.7	9156.5	11345.2	11549.0	2.0	toyota	gas	std	two	hatchback	rwd	front	98.4	176.2	65.6	52.0	2714.0	ohc	four	146.0	mpfi	3.62	3.50	9.30	116.0	4800.0	24.0	30.0
123	11397.6	12061.4	12590.9	11562.6	11694.0	0.0	subaru	gas	turbo	four	wagon	4wd	front	96.9	173.6	65.4	54.9	2650.0	ohcf	four	108.0	mpfi	3.62	2.64	7.70	111.0	4800.0	23.0	23.0
119	12079.6	10486.0	12135.1	11724.1	11259.0	0.0	subaru	gas	turbo	four	sedan	4wd	front	97.0	172.0	65.4	54.3	2510.0	ohcf	four	108.0	mpfi	3.62	2.64	7.70	111.0	4800.0	24.0	29.0
106	12835.9	12804.1	11084.4	12438.1	11850.0	3.0	saab	gas	std	two	hatchback	fwd	front	99.1	186.6	66.5	56.1	2658.0	ohc	four	121.0	mpfi	3.54	3.07	9.31	110.0	5250.0	21.0	28.0
159	11838.7	12211.1	12386.1	12696.6	12290.0	0.0	volkswagen	gas	std	four	wagon	fwd	front	100.4	183.1	66.9	55.1	2563.0	ohc	four	109.0	mpfi	3.19	3.40	9.00	88.0	5500.0	25.0	31.0
83	14742.9	13921.8	15606.7	13056.7	13499.0	0.0	nissan	gas	std	four	sedan	fwd	front	100.4	184.6	66.5	55.1	3060.0	ohcv	six	181.0	mpfi	3.43	3.27	9.00	152.0	5200.0	19.0	25.0

+ 65 more

Write a comment...

File

Thu Nov 30 17, 19:09:40

File

File name: C:/Users/hp/Downloads/Data Science Assignment/Data Science Assignment/Automobiles-Testing.xlsx
Format: Mircosoft Excel spreadsheet

Data

Data instances: 29
Features: symboling, normalized-losses, make, fuel-type, aspiration, num-of-doors, body-style, drive-wheels, engine-location, wheel-base, length, width, height, curb-weight, engine-type, num-of-cylinders, engine-size, fuel-system, bore, stroke, compression-ratio, horsepower, peak-rpm, city-mpg, highway-mpg, price (total: 26 features)

Write a comment...

Impute

Thu Nov 30 17, 19:10:11

Default method: Don't impute
Specific imputers: normalized-losses (Model-based imputer (simple tree))

Write a comment...

Predictions

Thu Nov 30 17, 19:10:47

Info

Data: 29 instances.
Predictors: 4
Task: Regression

Data & Predictions

	Linear Regression	Random Forest	SVM	Neural Network	price	symboling	normalized-losses	make	fuel-type	aspiration	num-of-doors	body-style	drive-wheels	engine-location	wheel-base	length	width	height	curb-weight	engine-type	num-of-cylinders	engine-size	fuel-system	bore	stroke	compression-ratio	horsepower	peak-rpm	city-mpg	highway-mpg
1	16696.1	16680.1	15684.5	16706.6	?	-2.0	103.0	volvo	gas	std	four	sedan	rwd	front	104.3	188.8	67.2	56.2	2912.0	ohc	four	141.0	mpfi	3.78	3.15	9.5	114.0	5400.0	23.0	28.0
2	16940.2	16575.2	15536.9	16636.2	?	-1.0	74.0	volvo	gas	std	four	wagon	rwd	front	104.3	188.8	67.2	57.5	3034.0	ohc	four	141.0	mpfi	3.78	3.15	9.5	114.0	5400.0	23.0	28.0
3	19887.5	18759.9	16132.8	18356.3	?	-1.0	95.0	volvo	gas	std	four	sedan	rwd	front	109.1	188.8	68.9	55.5	2952.0	ohc	four	141.0	mpfi	3.78	3.15	9.5	114.0	5400.0	23.0	28.0
4	22701.6	19036.8	17623.8	21752.3	?	-1.0	95.0	volvo	gas	turbo	four	sedan	rwd	front	109.1	188.8	68.8	55.5	3049.0	ohc	four	141.0	mpfi	3.78	3.15	8.7	160.0	5300.0	19.0	25.0
5	20469.4	18307.7	19887.4	16116.3	?	-1.0	95.0	volvo	diesel	turbo	four	sedan	rwd	front	109.1	188.8	68.9	55.5	3217.0	ohc	six	145.0	idi	3.01	3.40	23.0	106.0	4800.0	26.0	27.0
6	6368.5	7216.7	6971.7	7612.1	?	0.0	91.0	toyota	gas	std	four	hatchback	fwd	front	95.7	166.3	64.4	52.8	2122.0	ohc	four	98.0	2bbl	3.19	3.03	9.0	70.0	4800.0	28.0	34.0
7	7102.1	7352.9	8469.1	7410.2	?	0.0	91.0	toyota	gas	std	four	sedan	fwd	front	95.7	166.3	64.4	52.8	2140.0	ohc	four	98.0	2bbl	3.19	3.03	9.0	70.0	4800.0	28.0	34.0
8	6552.8	7352.0	8236.6	2707.5	?	1.0	168.0	toyota	gas	std	two	sedan	rwd	front	94.5	168.7	64.0	52.6	2169.0	ohc	four	98.0	2bbl	3.19	3.03	9.0	70.0	4800.0	29.0	34.0
9	6232.8	7347.1	6576.3	4095.6	?	1.0	168.0	toyota	gas	std	two	hatchback	rwd	front	94.5	168.7	64.0	52.6	2204.0	ohc	four	98.0	2bbl	3.19	3.03	9.0	70.0	4800.0	29.0	34.0
10	8419.6	10033.1	9883.0	9663.1	?	-1.0	65.0	toyota	gas	std	four	sedan	fwd	front	102.4	175.6	66.5	54.9	2326.0	ohc	four	122.0	mpfi	3.31	3.54	8.7	92.0	4200.0	29.0	34.0
11	10780.7	10220.7	12518.4	11672.8	?	-1.0	65.0	toyota	diesel	turbo	four	sedan	fwd	front	102.4	175.6	66.5	54.9	2480.0	ohc	four	110.0	idi	3.27	3.35	22.5	73.0	4500.0	30.0	33.0
12	8630.7	10202.7	8448.6	11114.4	?	-1.0	65.0	toyota	gas	std	four	hatchback	fwd	front	102.4	175.6	66.5	53.9	2414.0	ohc	four	122.0	mpfi	3.31	3.54	8.7	92.0	4200.0	27.0	32.0
13	8835.5	10003.9	10131.3	10143.6	?	-1.0	65.0	toyota	gas	std	four	sedan	fwd	front	102.4	175.6	66.5	54.9	2414.0	ohc	four	122.0	mpfi	3.31	3.54	8.7	92.0	4200.0	27.0	32.0
14	14345.7	14222.7	12151.9	13742.1	?	3.0	186.0	plymouth	gas	turbo	two	hatchback	rwd	front	95.9	173.2	66.3	50.2	2818.0	ohc	four	156.0	spdi	3.59	3.86	7.0	145.0	5000.0	19.0	24.0
15	23328.0	16073.3	13515.8	21934.5	?	3.0	186.0	porsche	gas	std	two	hatchback	rwd	front	94.5	168.9	68.3	50.2	2778.0	ohc	four	151.0	mpfi	3.94	3.11	9.5	143.0	5500.0	19.0	27.0
16	33880.8	34614.6	31456.0	34288.0	?	3.0	186.0	porsche	gas	std	two	hardtop	rwd	rear	89.5	168.9	65.0	51.6	2756.0	ohcf	six	194.0	mpfi	3.74	2.90	9.5	207.0	5900.0	17.0	25.0
17	5968.9	6893.9	8881.0	7768.4	?	1.0	122.0	nissan	gas	std	four	sedan	fwd	front	94.5	165.3	63.8	54.5	1938.0	ohc	four	97.0	2bbl	3.15	3.29	9.4	69.0	5200.0	31.0	37.0
18	6048.0	7776.6	9000.9	8111.2	?	1.0	103.0	nissan	gas	std	four	wagon	fwd	front	94.5	170.2	63.8	53.5	2024.0	ohc	four	97.0	2bbl	3.15	3.29	9.4	69.0	5200.0	31.0	37.0
19	5886.6	7226.9	8799.3	6255.7	?	1.0	128.0	nissan	gas	std	two	sedan	fwd	front	94.5	165.3	63.8	54.5	1951.0	ohc	four	97.0	2bbl	3.15	3.29	9.4	69.0	5200.0	31.0	37.0
20	6313.4	6889.1	7370.5	6872.6	?	1.0	128.0	nissan	gas	std	two	hatchback	fwd	front	94.5	165.6	63.8	53.3	2028.0	ohc	four	97.0	2bbl	3.15	3.29	9.4	69.0	5200.0	31.0	37.0
21	30404.4	29474.0	31663.7	29312.6	?	-1.0	93.0	mercedes-benz	diesel	turbo	four	sedan	rwd	front	115.6	202.6	71.7	56.3	3770.0	ohc	five	183.0	idi	3.58	3.64	21.5	123.0	4350.0	22.0	25.0
22	44175.6	34774.6	37287.1	39800.1	?	-1.0	93.0	mercedes-benz	gas	std	four	sedan	rwd	front	115.6	202.6	71.7	56.5	3740.0	ohcv	eight	234.0	mpfi	3.46	3.10	8.3	155.0	4750.0	16.0	18.0
23	44035.6	33308.4	37304.9	44032.3	?	3.0	142.0	mercedes-benz	gas	std	two	convertible	rwd	front	96.6	180.3	70.5	50.8	3685.0	ohcv	eight	234.0	mpfi	3.46	3.10	8.3	155.0	4750.0	16.0	18.0
24	48859.7	36984.2	42994.0	46092.1	?	0.0	192.0	mercedes-benz	gas	std	four	sedan	rwd	front	120.9	208.1	71.7	56.7	3900.0	ohcv	eight	308.0	mpfi	3.80	3.35	8.0	184.0	4500.0	14.0	16.0
25	21414.7	18732.5	18783.4	21587.4	?	1.0	158.0	audi	gas	turbo	four	sedan	fwd	front	105.8	192.7	71.4	55.9	3086.0	ohc	five	131.0	mpfi	3.13	3.40	8.3	140.0	5500.0	17.0	20.0
26	22841.4	17108.7	15885.7	23082.6	?	0.0	142.0	audi	gas	turbo	two	hatchback	4wd	front	99.5	178.2	67.9	52.0	3053.0	ohc	five	131.0	mpfi	3.13	3.40	7.0	160.0	5500.0	16.0	22.0
27	24315.2	10120.5	17467.0	22104.7	?	2.0	192.0	bmw	gas	std	two	sedan	rwd	front	101.2	176.8	64.8	54.3	2395.0	ohc	four	108.0	mpfi	3.50	2.80	8.8	101.0	5800.0	23.0	29.0
28	24483.4	10162.5	17636.8	18946.4	?	0.0	192.0	bmw	gas	std	four	sedan	rwd	front	101.2	176.8	64.8	54.3	2395.0	ohc	four	108.0	mpfi	3.50	2.80	8.8	101.0	5800.0	23.0	29.0
29	7423.5	7117.0	8940.3	7052.4	?	1.0	148.0	dodge	gas	std	four	sedan	fwd	front	93.7	157.3	63.8	50.6	1989.0	ohc	four	90.0	2bbl	2.97	3.23	9.4	68.0	5500.0	31.0	38.0

Test Data