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1 "C:\Users\asied\OneDrive\Documents\Coding Related Things\Garch Volatility  
Forecasting\venv\Scripts\python.exe" "C:/Users/asied/OneDrive/Documents/  
Coding Related Things/Garch Volatility Forecasting/FTSELSTM.py"  
2 Epoch 1/598  
3 30/30 [=====] - 0s 2ms/step - loss: 48380520.  
0000 - mean_absolute_error: 6933.2417 - val_loss: 52867740.0000 -  
val_mean_absolute_error: 7268.1470  
4 Epoch 2/598  
5 30/30 [=====] - 0s 2ms/step - loss: 48332444.  
0000 - mean_absolute_error: 6929.7764 - val_loss: 52774296.0000 -  
val_mean_absolute_error: 7261.7178  
6 Epoch 3/598  
7 30/30 [=====] - 0s 2ms/step - loss: 48171456.  
0000 - mean_absolute_error: 6918.1958 - val_loss: 52536516.0000 -  
val_mean_absolute_error: 7245.3262  
8 Epoch 4/598  
9 30/30 [=====] - 0s 2ms/step - loss: 47839032.  
0000 - mean_absolute_error: 6893.9688 - val_loss: 52095856.0000 -  
val_mean_absolute_error: 7214.8525  
10 Epoch 5/598  
11 30/30 [=====] - 0s 2ms/step - loss: 47318604.  
0000 - mean_absolute_error: 6855.3638 - val_loss: 51370560.0000 -  
val_mean_absolute_error: 7164.4126
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12 Epoch 6/598
13 30/30 [=====] - 0s 2ms/step - loss: 46562332.
0000 - mean_absolute_error: 6797.6245 - val_loss: 50327140.0000 -
val_mean_absolute_error: 7091.2192
14 Epoch 7/598
15 30/30 [=====] - 0s 2ms/step - loss: 45315884.
0000 - mean_absolute_error: 6700.8052 - val_loss: 48829952.0000 -
val_mean_absolute_error: 6984.8555
16 Epoch 8/598
17 30/30 [=====] - 0s 2ms/step - loss: 43913044.
0000 - mean_absolute_error: 6583.8789 - val_loss: 46892244.0000 -
val_mean_absolute_error: 6844.7427
18 Epoch 9/598
19 30/30 [=====] - 0s 2ms/step - loss: 42054156.
0000 - mean_absolute_error: 6419.5845 - val_loss: 44530616.0000 -
val_mean_absolute_error: 6669.9985
20 Epoch 10/598
21 30/30 [=====] - 0s 2ms/step - loss: 40519972.
0000 - mean_absolute_error: 6265.5908 - val_loss: 41930116.0000 -
val_mean_absolute_error: 6472.1235
22 Epoch 11/598
23 30/30 [=====] - 0s 2ms/step - loss: 38503920.
0000 - mean_absolute_error: 6048.4575 - val_loss: 39067420.0000 -
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23 val_mean_absolute_error: 6247.0547
24 Epoch 12/598
25 30/30 [=====] - 0s 2ms/step - loss: 36769472.
0000 - mean_absolute_error: 5822.0869 - val_loss: 36185688.0000 -
val_mean_absolute_error: 6011.9849
26 Epoch 13/598
27 30/30 [=====] - 0s 2ms/step - Loss: 35607768.
0000 - mean_absolute_error: 5659.0781 - val_loss: 33384322.0000 -
val_mean_absolute_error: 5774.3052
28 Epoch 14/598
29 30/30 [=====] - 0s 2ms/step - loss: 33357456.
0000 - mean_absolute_error: 5328.7349 - val_loss: 30764614.0000 -
val_mean_absolute_error: 5542.8242
30 Epoch 15/598
31 30/30 [=====] - 0s 2ms/step - loss: 32647408.
0000 - mean_absolute_error: 5216.0020 - val_loss: 28673572.0000 -
val_mean_absolute_error: 5350.8750
32 Epoch 16/598
33 30/30 [=====] - 0s 2ms/step - loss: 32316736.
0000 - mean_absolute_error: 5142.4937 - val_loss: 27310468.0000 -
val_mean_absolute_error: 5221.9502
34 Epoch 17/598
35 30/30 [=====] - 0s 2ms/step - loss: 31717940.
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35 0000 - mean_absolute_error: 5069.8408 - val_loss: 26271194.0000 -
    val_mean_absolute_error: 5121.4741
36 Epoch 18/598
37 30/30 [=====] - 0s 2ms/step - loss: 30953540.
0000 - mean_absolute_error: 4979.1851 - val_loss: 25526432.0000 -
    val_mean_absolute_error: 5048.2422
38 Epoch 19/598
39 30/30 [=====] - 0s 2ms/step - loss: 31875156.
0000 - mean_absolute_error: 5061.5903 - val_loss: 25109452.0000 -
    val_mean_absolute_error: 5006.7734
40 Epoch 20/598
41 30/30 [=====] - 0s 2ms/step - loss: 30830948.
0000 - mean_absolute_error: 4938.9302 - val_loss: 24649440.0000 -
    val_mean_absolute_error: 4960.6230
42 Epoch 21/598
43 30/30 [=====] - 0s 2ms/step - loss: 32588488.
0000 - mean_absolute_error: 5158.9141 - val_loss: 24464648.0000 -
    val_mean_absolute_error: 4941.9639
44 Epoch 22/598
45 30/30 [=====] - 0s 2ms/step - loss: 31112038.
0000 - mean_absolute_error: 4965.4229 - val_loss: 24462322.0000 -
    val_mean_absolute_error: 4941.7305
46 Epoch 23/598
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47 30/30 [=====] - 0s 2ms/step - loss: 31136174.  
0000 - mean_absolute_error: 4951.2695 - val_loss: 24595636.0000 -  
val_mean_absolute_error: 4955.2036  
48 Epoch 24/598  
49 30/30 [=====] - 0s 2ms/step - loss: 32020038.  
0000 - mean_absolute_error: 5105.4727 - val_loss: 24487444.0000 -  
val_mean_absolute_error: 4944.2783  
50 Epoch 25/598  
51 30/30 [=====] - 0s 2ms/step - loss: 30625988.  
0000 - mean_absolute_error: 4934.4609 - val_loss: 24475096.0000 -  
val_mean_absolute_error: 4943.0381  
52 Epoch 26/598  
53 30/30 [=====] - 0s 2ms/step - loss: 31223304.  
0000 - mean_absolute_error: 4989.8071 - val_loss: 23830918.0000 -  
val_mean_absolute_error: 4877.4497  
54 Epoch 27/598  
55 30/30 [=====] - 0s 2ms/step - loss: 31553758.  
0000 - mean_absolute_error: 5025.0332 - val_loss: 23603432.0000 -  
val_mean_absolute_error: 4854.1157  
56 Epoch 28/598  
57 30/30 [=====] - 0s 2ms/step - loss: 31669932.  
0000 - mean_absolute_error: 5053.0542 - val_loss: 24680268.0000 -  
val_mean_absolute_error: 4965.9883
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58 Epoch 29/598
59 30/30 [=====] - 0s 2ms/step - loss: 32742184.
0000 - mean_absolute_error: 5183.2881 - val_loss: 25470580.0000 -
val_mean_absolute_error: 5045.8540
60 Epoch 30/598
61 30/30 [=====] - 0s 2ms/step - loss: 30721070.
0000 - mean_absolute_error: 4895.2622 - val_loss: 24716220.0000 -
val_mean_absolute_error: 4970.3848
62 Epoch 31/598
63 30/30 [=====] - 0s 2ms/step - loss: 30775768.
0000 - mean_absolute_error: 4942.4517 - val_loss: 250095908.0000 -
val_mean_absolute_error: 5008.4082
64 Epoch 32/598
65 30/30 [=====] - 0s 2ms/step - loss: 30433440.
0000 - mean_absolute_error: 4894.7256 - val_loss: 23849416.0000 -
val_mean_absolute_error: 4882.3262
66 Epoch 33/598
67 30/30 [=====] - 0s 2ms/step - loss: 30682734.
0000 - mean_absolute_error: 4869.7119 - val_loss: 26949636.0000 -
val_mean_absolute_error: 5188.5635
68 Epoch 34/598
69 30/30 [=====] - 0s 2ms/step - loss: 29934464.
0000 - mean_absolute_error: 4812.2222 - val_loss: 26849898.0000 -
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69 val_mean_absolute_error: 5180.7744
70 Epoch 35/598
71 30/30 [=====] - 0s 2ms/step - loss: 29229200.
0000 - mean_absolute_error: 4713.3091 - val_loss: 24960238.0000 -
val_mean_absolute_error: 4995.3423
72 Epoch 36/598
73 30/30 [=====] - 0s 2ms/step - loss: 30804730.
0000 - mean_absolute_error: 4924.5630 - val_loss: 25451162.0000 -
val_mean_absolute_error: 5044.4014
74 Epoch 37/598
75 30/30 [=====] - 0s 2ms/step - loss: 30737288.
0000 - mean_absolute_error: 4942.9321 - val_loss: 24364110.0000 -
val_mean_absolute_error: 4935.4478
76 Epoch 38/598
77 30/30 [=====] - 0s 2ms/step - loss: 30090162.
0000 - mean_absolute_error: 4838.3457 - val_loss: 23481110.0000 -
val_mean_absolute_error: 4845.1572
78 Epoch 39/598
79 30/30 [=====] - 0s 2ms/step - loss: 29987830.
0000 - mean_absolute_error: 4834.9941 - val_loss: 24114312.0000 -
val_mean_absolute_error: 4910.1206
80 Epoch 40/598
81 30/30 [=====] - 0s 2ms/step - loss: 28792982.
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81 0000 - mean_absolute_error: 4651.6885 - val_loss: 23580970.0000 -
    val_mean_absolute_error: 4855.4966
82 Epoch 41/598
83 30/30 [=====] - 0s 2ms/step - loss: 29009880.
0000 - mean_absolute_error: 4673.5288 - val_loss: 24647380.0000 -
    val_mean_absolute_error: 4964.1953
84 Epoch 42/598
85 30/30 [=====] - 0s 2ms/step - loss: 29200612.
0000 - mean_absolute_error: 4694.7378 - val_loss: 24442944.0000 -
    val_mean_absolute_error: 4943.5859
86 Epoch 43/598
87 30/30 [=====] - 0s 3ms/step - loss: 29047028.
0000 - mean_absolute_error: 4673.4199 - val_loss: 23111990.0000 -
    val_mean_absolute_error: 4807.0869
88 Epoch 44/598
89 30/30 [=====] - 0s 2ms/step - loss: 27429528.
0000 - mean_absolute_error: 4444.6084 - val_loss: 22830648.0000 -
    val_mean_absolute_error: 4777.7275
90 Epoch 45/598
91 30/30 [=====] - 0s 2ms/step - loss: 28164140.
0000 - mean_absolute_error: 4505.2690 - val_loss: 23415442.0000 -
    val_mean_absolute_error: 4838.5669
92 Epoch 46/598
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93 30/30 [=====] - 0s 2ms/step - loss: 27761600.  
0000 - mean_absolute_error: 4458.8345 - val_loss: 22779554.0000 -  
val_mean_absolute_error: 4772.4092  
94 Epoch 47/598  
95 30/30 [=====] - 0s 2ms/step - loss: 27197902.  
0000 - mean_absolute_error: 4372.5664 - val_loss: 22695886.0000 -  
val_mean_absolute_error: 4763.6206  
96 Epoch 48/598  
97 30/30 [=====] - 0s 2ms/step - loss: 27630904.  
0000 - mean_absolute_error: 4428.8462 - val_loss: 22581444.0000 -  
val_mean_absolute_error: 4751.5762  
98 Epoch 49/598  
99 30/30 [=====] - 0s 2ms/step - loss: 27893976.  
0000 - mean_absolute_error: 4441.8521 - val_loss: 22473928.0000 -  
val_mean_absolute_error: 4740.2476  
100 Epoch 50/598  
101 30/30 [=====] - 0s 2ms/step - loss: 27184464.  
0000 - mean_absolute_error: 4345.3813 - val_loss: 21472688.0000 -  
val_mean_absolute_error: 4633.4585  
102 Epoch 51/598  
103 30/30 [=====] - 0s 2ms/step - loss: 26757702.  
0000 - mean_absolute_error: 4261.5654 - val_loss: 20935076.0000 -  
val_mean_absolute_error: 4575.0972
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104 Epoch 52/598
105 30/30 [=====] - 0s 2ms/step - loss: 28106658.
0000 - mean_absolute_error: 4423.2974 - val_loss: 21436906.0000 -
val_mean_absolute_error: 4629.6011

106 Epoch 53/598
107 30/30 [=====] - 0s 2ms/step - loss: 26330832.
0000 - mean_absolute_error: 4147.5132 - val_loss: 20768316.0000 -
val_mean_absolute_error: 4556.8350

108 Epoch 54/598
109 30/30 [=====] - 0s 2ms/step - loss: 27710614.
0000 - mean_absolute_error: 4321.6323 - val_loss: 20808742.0000 -
val_mean_absolute_error: 4561.2705

110 Epoch 55/598
111 30/30 [=====] - 0s 2ms/step - loss: 25866094.
0000 - mean_absolute_error: 4077.0420 - val_loss: 20400062.0000 -
val_mean_absolute_error: 4516.2446

112 Epoch 56/598
113 30/30 [=====] - 0s 2ms/step - loss: 26878198.
0000 - mean_absolute_error: 4170.7339 - val_loss: 19999542.0000 -
val_mean_absolute_error: 4471.6597

114 Epoch 57/598
115 30/30 [=====] - 0s 2ms/step - loss: 27719312.
0000 - mean_absolute_error: 4309.7847 - val_loss: 20135074.0000 -
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115 val_mean_absolute_error: 4486.7881
116 Epoch 58/598
117 30/30 [=====] - 0s 2ms/step - loss: 26811488.
0000 - mean_absolute_error: 4134.2031 - val_loss: 19755546.0000 -
val_mean_absolute_error: 4444.3135
118 Epoch 59/598
119 30/30 [=====] - 0s 2ms/step - loss: 26914128.
0000 - mean_absolute_error: 4152.0605 - val_loss: 19551218.0000 -
val_mean_absolute_error: 4421.2710
120 Epoch 60/598
121 30/30 [=====] - 0s 2ms/step - loss: 26103554.
0000 - mean_absolute_error: 4043.3337 - val_loss: 19833514.0000 -
val_mean_absolute_error: 4453.0835
122 Epoch 61/598
123 30/30 [=====] - 0s 2ms/step - loss: 27020558.
0000 - mean_absolute_error: 4161.5425 - val_loss: 19694672.0000 -
val_mean_absolute_error: 4437.4565
124 Epoch 62/598
125 30/30 [=====] - 0s 2ms/step - loss: 26768806.
0000 - mean_absolute_error: 4121.4507 - val_loss: 19532942.0000 -
val_mean_absolute_error: 4419.1992
126 Epoch 63/598
127 30/30 [=====] - 0s 2ms/step - loss: 25589476.
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127 0000 - mean_absolute_error: 3933.4587 - val_loss: 19272052.0000 -
    val_mean_absolute_error: 4389.5762
128 Epoch 64/598
129 30/30 [=====] - 0s 2ms/step - Loss: 25770416.
0000 - mean_absolute_error: 3961.8760 - val_loss: 19227330.0000 -
    val_mean_absolute_error: 4384.4839
130 Epoch 65/598
131 30/30 [=====] - 0s 2ms/step - Loss: 24848980.
0000 - mean_absolute_error: 3834.7373 - val_loss: 19141928.0000 -
    val_mean_absolute_error: 4374.7261
132 Epoch 66/598
133 30/30 [=====] - 0s 2ms/step - Loss: 27354180.
0000 - mean_absolute_error: 4199.2676 - val_loss: 18926276.0000 -
    val_mean_absolute_error: 4350.0005
134 Epoch 67/598
135 30/30 [=====] - 0s 2ms/step - Loss: 25746556.
0000 - mean_absolute_error: 3965.1821 - val_loss: 18850480.0000 -
    val_mean_absolute_error: 4341.2905
136 Epoch 68/598
137 30/30 [=====] - 0s 2ms/step - Loss: 26458000.
0000 - mean_absolute_error: 4092.5605 - val_loss: 18547318.0000 -
    val_mean_absolute_error: 4306.2432
138 Epoch 69/598
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139 30/30 [=====] - 0s 2ms/step - loss: 26239450.  
0000 - mean_absolute_error: 4041.3267 - val_loss: 18712742.0000 -  
val_mean_absolute_error: 4325.4077  
140 Epoch 70/598  
141 30/30 [=====] - 0s 2ms/step - loss: 25771082.  
0000 - mean_absolute_error: 3982.7388 - val_loss: 18767066.0000 -  
val_mean_absolute_error: 4331.6802  
142 Epoch 71/598  
143 30/30 [=====] - 0s 2ms/step - loss: 25068462.  
0000 - mean_absolute_error: 3898.6040 - val_loss: 18640584.0000 -  
val_mean_absolute_error: 4317.0508  
144 Epoch 72/598  
145 30/30 [=====] - 0s 2ms/step - loss: 25962488.  
0000 - mean_absolute_error: 4022.9111 - val_loss: 18422246.0000 -  
val_mean_absolute_error: 4291.6978  
146 Epoch 73/598  
147 30/30 [=====] - 0s 2ms/step - loss: 25993936.  
0000 - mean_absolute_error: 4057.1379 - val_loss: 18486850.0000 -  
val_mean_absolute_error: 4299.2124  
148 Epoch 74/598  
149 30/30 [=====] - 0s 2ms/step - loss: 26203304.  
0000 - mean_absolute_error: 4091.0730 - val_loss: 18354680.0000 -  
val_mean_absolute_error: 4283.8149
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150 Epoch 75/598
151 30/30 [=====] - 0s 2ms/step - loss: 25443570.
0000 - mean_absolute_error: 3966.8813 - val_loss: 18082032.0000 -
val_mean_absolute_error: 4251.8784

152 Epoch 76/598
153 30/30 [=====] - 0s 2ms/step - loss: 25052198.
0000 - mean_absolute_error: 3927.3787 - val_loss: 18229560.0000 -
val_mean_absolute_error: 4269.1665

154 Epoch 77/598
155 30/30 [=====] - 0s 2ms/step - loss: 25367804.
0000 - mean_absolute_error: 3979.4541 - val_loss: 18432092.0000 -
val_mean_absolute_error: 4292.8398

156 Epoch 78/598
157 30/30 [=====] - 0s 2ms/step - loss: 25667976.
0000 - mean_absolute_error: 4020.0815 - val_loss: 18197738.0000 -
val_mean_absolute_error: 4265.4580

158 Epoch 79/598
159 30/30 [=====] - 0s 2ms/step - loss: 24257246.
0000 - mean_absolute_error: 3827.6780 - val_loss: 18100256.0000 -
val_mean_absolute_error: 4254.0210

160 Epoch 80/598
161 30/30 [=====] - 0s 2ms/step - loss: 25439342.
0000 - mean_absolute_error: 4002.6008 - val_loss: 18123944.0000 -
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161 val_mean_absolute_error: 4256.7456
162 Epoch 81/598
163 30/30 [=====] - 0s 2ms/step - loss: 24484130.
0000 - mean_absolute_error: 3871.3765 - val_loss: 18297036.0000 -
val_mean_absolute_error: 4277.0420
164 Epoch 82/598
165 30/30 [=====] - 0s 2ms/step - loss: 24921598.
0000 - mean_absolute_error: 3935.0793 - val_loss: 17924506.0000 -
val_mean_absolute_error: 4233.3003
166 Epoch 83/598
167 30/30 [=====] - 0s 2ms/step - loss: 24922212.
0000 - mean_absolute_error: 3955.1265 - val_loss: 17903158.0000 -
val_mean_absolute_error: 4230.7896
168 Epoch 84/598
169 30/30 [=====] - 0s 2ms/step - loss: 23144198.
0000 - mean_absolute_error: 3673.4514 - val_loss: 17711972.0000 -
val_mean_absolute_error: 4208.0991
170 Epoch 85/598
171 30/30 [=====] - 0s 2ms/step - loss: 25282016.
0000 - mean_absolute_error: 4008.5442 - val_loss: 17754660.0000 -
val_mean_absolute_error: 4213.2090
172 Epoch 86/598
173 30/30 [=====] - 0s 2ms/step - loss: 24541556.
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173 0000 - mean_absolute_error: 3909.2136 - val_loss: 17717194.0000 -
    val_mean_absolute_error: 4208.7314
174 Epoch 87/598
175 30/30 [=====] - 0s 2ms/step - Loss: 25013808.
0000 - mean_absolute_error: 3987.5054 - val_loss: 17579212.0000 -
    val_mean_absolute_error: 4192.3257
176 Epoch 88/598
177 30/30 [=====] - 0s 2ms/step - Loss: 24571662.
0000 - mean_absolute_error: 3919.7043 - val_loss: 17506978.0000 -
    val_mean_absolute_error: 4183.7026
178 Epoch 89/598
179 30/30 [=====] - 0s 2ms/step - Loss: 24137582.
0000 - mean_absolute_error: 3874.9639 - val_loss: 17522608.0000 -
    val_mean_absolute_error: 4185.5337
180 Epoch 90/598
181 30/30 [=====] - 0s 2ms/step - Loss: 25201024.
0000 - mean_absolute_error: 4031.5325 - val_loss: 17337362.0000 -
    val_mean_absolute_error: 4163.3979
182 Epoch 91/598
183 30/30 [=====] - 0s 2ms/step - Loss: 24444962.
0000 - mean_absolute_error: 3936.3770 - val_loss: 17407226.0000 -
    val_mean_absolute_error: 4171.7402
184 Epoch 92/598
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185 30/30 [=====] - 0s 2ms/step - loss: 23613108.  
0000 - mean_absolute_error: 3811.1665 - val_loss: 17331436.0000 -  
val_mean_absolute_error: 4162.6665  
186 Epoch 93/598  
187 30/30 [=====] - 0s 2ms/step - loss: 25994724.  
0000 - mean_absolute_error: 4169.0454 - val_loss: 17299378.0000 -  
val_mean_absolute_error: 4158.7881  
188 Epoch 94/598  
189 30/30 [=====] - 0s 2ms/step - loss: 24147332.  
0000 - mean_absolute_error: 3910.0459 - val_loss: 17389318.0000 -  
val_mean_absolute_error: 4169.6357  
190 Epoch 95/598  
191 30/30 [=====] - 0s 2ms/step - loss: 24007164.  
0000 - mean_absolute_error: 3886.3560 - val_loss: 17109590.0000 -  
val_mean_absolute_error: 4135.8813  
192 Epoch 96/598  
193 30/30 [=====] - 0s 2ms/step - loss: 222221820.  
0000 - mean_absolute_error: 3627.2866 - val_loss: 17064778.0000 -  
val_mean_absolute_error: 4130.4580  
194 Epoch 97/598  
195 30/30 [=====] - 0s 2ms/step - loss: 23714056.  
0000 - mean_absolute_error: 3863.5757 - val_loss: 16630816.0000 -  
val_mean_absolute_error: 4077.6357
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196 Epoch 98/598
197 30/30 [=====] - 0s 2ms/step - loss: 22914146.
0000 - mean_absolute_error: 3755.1646 - val_loss: 16769742.0000 -
val_mean_absolute_error: 4094.6279
198 Epoch 99/598
199 30/30 [=====] - 0s 2ms/step - loss: 23087632.
0000 - mean_absolute_error: 3774.3662 - val_loss: 17000404.0000 -
val_mean_absolute_error: 4122.7256
200 Epoch 100/598
201 30/30 [=====] - 0s 2ms/step - loss: 22452098.
0000 - mean_absolute_error: 3693.3401 - val_loss: 16717023.0000 -
val_mean_absolute_error: 4088.2068
202 Epoch 101/598
203 30/30 [=====] - 0s 2ms/step - loss: 23980564.
0000 - mean_absolute_error: 3937.3315 - val_loss: 16738986.0000 -
val_mean_absolute_error: 4090.8728
204 Epoch 102/598
205 30/30 [=====] - 0s 2ms/step - loss: 22774518.
0000 - mean_absolute_error: 3762.6587 - val_loss: 16587231.0000 -
val_mean_absolute_error: 4072.3042
206 Epoch 103/598
207 30/30 [=====] - 0s 2ms/step - loss: 22591628.
0000 - mean_absolute_error: 3745.0730 - val_loss: 16482437.0000 -
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207 val_mean_absolute_error: 4059.4182
208 Epoch 104/598
209 30/30 [=====] - 0s 2ms/step - loss: 22037754.
0000 - mean_absolute_error: 3668.7295 - val_loss: 16530979.0000 -
val_mean_absolute_error: 4065.4084
210 Epoch 105/598
211 30/30 [=====] - 0s 2ms/step - loss: 21871986.
0000 - mean_absolute_error: 3641.7795 - val_loss: 16384214.0000 -
val_mean_absolute_error: 4047.3186
212 Epoch 106/598
213 30/30 [=====] - 0s 2ms/step - loss: 22697248.
0000 - mean_absolute_error: 3790.0989 - val_loss: 16391312.0000 -
val_mean_absolute_error: 4048.1511
214 Epoch 107/598
215 30/30 [=====] - 0s 2ms/step - loss: 23225992.
0000 - mean_absolute_error: 3707.1414 - val_loss: 22072652.
val_mean_absolute_error: 4012.7729
216 Epoch 108/598
217 30/30 [=====] - 0s 2ms/step - loss: 23225992.
0000 - mean_absolute_error: 3891.6233 - val_loss: 15913916.0000 -
val_mean_absolute_error: 3988.7891
218 Epoch 109/598
219 30/30 [=====] - 0s 2ms/step - loss: 21666508.
```

```
219 0000 - mean_absolute_error: 3663.5073 - val_loss: 15850062.0000 -
    val_mean_absolute_error: 3980.7324
220 Epoch 110/598
221 30/30 [=====] - 0s 2ms/step - loss: 20898024.
0000 - mean_absolute_error: 3539.2268 - val_loss: 15691324.0000 -
    val_mean_absolute_error: 3960.7891
222 Epoch 111/598
223 30/30 [=====] - 0s 2ms/step - loss: 20770694.
0000 - mean_absolute_error: 3535.1948 - val_loss: 15808412.0000 -
    val_mean_absolute_error: 3975.5452
224 Epoch 112/598
225 30/30 [=====] - 0s 2ms/step - loss: 22928866.
0000 - mean_absolute_error: 3878.0259 - val_loss: 15618736.0000 -
    val_mean_absolute_error: 3951.6057
226 Epoch 113/598
227 30/30 [=====] - 0s 2ms/step - loss: 21672596.
0000 - mean_absolute_error: 3699.6616 - val_loss: 15779429.0000 -
    val_mean_absolute_error: 3971.9041
228 Epoch 114/598
229 30/30 [=====] - 0s 2ms/step - loss: 20821872.
0000 - mean_absolute_error: 3569.5498 - val_loss: 15610511.0000 -
    val_mean_absolute_error: 3950.5576
230 Epoch 115/598
```

```
231 30/30 [=====] - 0s 2ms/step - loss: 20364656.  
0000 - mean_absolute_error: 3507.2246 - val_loss: 15356540.0000 -  
val_mean_absolute_error: 3918.3108  
232 Epoch 116/598  
233 30/30 [=====] - 0s 2ms/step - loss: 21003532.  
0000 - mean_absolute_error: 3612.1531 - val_loss: 15242931.0000 -  
val_mean_absolute_error: 3903.7832  
234 Epoch 117/598  
235 30/30 [=====] - 0s 2ms/step - loss: 21286436.  
0000 - mean_absolute_error: 3685.7266 - val_loss: 15226622.0000 -  
val_mean_absolute_error: 3901.6985  
236 Epoch 118/598  
237 30/30 [=====] - 0s 2ms/step - loss: 19956590.  
0000 - mean_absolute_error: 3475.6074 - val_loss: 14959406.0000 -  
val_mean_absolute_error: 3867.2649  
238 Epoch 119/598  
239 30/30 [=====] - 0s 2ms/step - loss: 20569256.  
0000 - mean_absolute_error: 3604.7148 - val_loss: 15087188.0000 -  
val_mean_absolute_error: 3883.7629  
240 Epoch 120/598  
241 30/30 [=====] - 0s 2ms/step - loss: 19674240.  
0000 - mean_absolute_error: 3453.1616 - val_loss: 15046277.0000 -  
val_mean_absolute_error: 3878.5034
```

```
242 Epoch 121/598
243 30/30 [=====] - 0s 2ms/step - loss: 200083352.
0000 - mean_absolute_error: 3528.0410 - val_loss: 14948875.0000 -
val_mean_absolute_error: 3865.9434
244 Epoch 122/598
245 30/30 [=====] - 0s 2ms/step - loss: 19726596.
0000 - mean_absolute_error: 3473.7717 - val_loss: 14943828.0000 -
val_mean_absolute_error: 3865.2522
246 Epoch 123/598
247 30/30 [=====] - 0s 2ms/step - loss: 19153410.
0000 - mean_absolute_error: 3409.5984 - val_loss: 146666312.0000 -
val_mean_absolute_error: 3829.2175
248 Epoch 124/598
249 30/30 [=====] - 0s 2ms/step - loss: 18466648.
0000 - mean_absolute_error: 3300.6482 - val_loss: 14535838.0000 -
val_mean_absolute_error: 3812.1367
250 Epoch 125/598
251 30/30 [=====] - 0s 2ms/step - loss: 19328084.
0000 - mean_absolute_error: 3455.0920 - val_loss: 14531081.0000 -
val_mean_absolute_error: 3811.4905
252 Epoch 126/598
253 30/30 [=====] - 0s 2ms/step - loss: 20118344.
0000 - mean_absolute_error: 3596.7280 - val_loss: 14147361.0000 -
```

```
253 val_mean_absolute_error: 3760.8484
254 Epoch 127/598
255 30/30 [=====] - 0s 2ms/step - Loss: 19163076.
0000 - mean_absolute_error: 3460.6885 - val_loss: 14328793.0000 -
val_mean_absolute_error: 3784.8845
256 Epoch 128/598
257 30/30 [=====] - 0s 2ms/step - Loss: 18632966.
0000 - mean_absolute_error: 3375.0728 - val_loss: 14055565.0000 -
val_mean_absolute_error: 3748.6165
258 Epoch 129/598
259 30/30 [=====] - 0s 2ms/step - Loss: 18340544.
0000 - mean_absolute_error: 3328.5452 - val_loss: 13998561.0000 -
val_mean_absolute_error: 3740.9963
260 Epoch 130/598
261 30/30 [=====] - 0s 2ms/step - Loss: 19079272.
0000 - mean_absolute_error: 3470.0017 - val_loss: 13934986.0000 -
val_mean_absolute_error: 3732.4792
262 Epoch 131/598
263 30/30 [=====] - 0s 2ms/step - Loss: 19069964.
0000 - mean_absolute_error: 3485.3899 - val_loss: 13625066.0000 -
val_mean_absolute_error: 3690.7532
264 Epoch 132/598
265 30/30 [=====] - 0s 2ms/step - Loss: 17618912.
```

```
265 0000 - mean_absolute_error: 3248.9861 - val_loss: 13592456.0000 -
    val_mean_absolute_error: 3686.3257
266 Epoch 133/598
267 30/30 [=====] - 0s 2ms/step - Loss: 18916060.
0000 - mean_absolute_error: 3495.3313 - val_loss: 13410733.0000 -
    val_mean_absolute_error: 3661.5901
268 Epoch 134/598
269 30/30 [=====] - 0s 2ms/step - Loss: 17458258.
0000 - mean_absolute_error: 3251.1084 - val_loss: 13457941.0000 -
    val_mean_absolute_error: 3668.0410
270 Epoch 135/598
271 30/30 [=====] - 0s 2ms/step - Loss: 18163566.
0000 - mean_absolute_error: 3395.4504 - val_loss: 13307318.0000 -
    val_mean_absolute_error: 3647.4524
272 Epoch 136/598
273 30/30 [=====] - 0s 2ms/step - Loss: 17115326.
0000 - mean_absolute_error: 3227.6038 - val_loss: 13192402.0000 -
    val_mean_absolute_error: 3631.6677
274 Epoch 137/598
275 30/30 [=====] - 0s 2ms/step - Loss: 17807368.
0000 - mean_absolute_error: 3353.5112 - val_loss: 13149885.0000 -
    val_mean_absolute_error: 3625.7903
276 Epoch 138/598
```

```
277 30/30 [=====] - 0s 2ms/step - loss: 17295914.  
0000 - mean_absolute_error: 3286.6780 - val_loss: 12885769.0000 -  
val_mean_absolute_error: 3589.1926  
278 Epoch 139/598  
279 30/30 [=====] - 0s 2ms/step - loss: 17156204.  
0000 - mean_absolute_error: 3280.5720 - val_loss: 12754951.0000 -  
val_mean_absolute_error: 3570.9146  
280 Epoch 140/598  
281 30/30 [=====] - 0s 2ms/step - loss: 17553056.  
0000 - mean_absolute_error: 3354.1875 - val_loss: 12765294.0000 -  
val_mean_absolute_error: 3572.3831  
282 Epoch 141/598  
283 30/30 [=====] - 0s 2ms/step - loss: 17067638.  
0000 - mean_absolute_error: 3284.7632 - val_loss: 12359388.0000 -  
val_mean_absolute_error: 3515.1021  
284 Epoch 142/598  
285 30/30 [=====] - 0s 2ms/step - loss: 16247311.  
0000 - mean_absolute_error: 3164.8499 - val_loss: 12473979.0000 -  
val_mean_absolute_error: 3531.3777  
286 Epoch 143/598  
287 30/30 [=====] - 0s 2ms/step - loss: 16449420.  
0000 - mean_absolute_error: 3222.2466 - val_loss: 12370910.0000 -  
val_mean_absolute_error: 3516.7537
```

```
288 Epoch 144/598
289 30/30 [=====] - 0s 2ms/step - loss: 16341091.
0000 - mean_absolute_error: 3202.4712 - val_loss: 12358111.0000 -
val_mean_absolute_error: 3514.9326
290 Epoch 145/598
291 30/30 [=====] - 0s 2ms/step - val_loss: 12336364.0000 -
0000 - mean_absolute_error: 3086.8682 - val_mean_absolute_error: 3511.8052
292 Epoch 146/598
293 30/30 [=====] - 0s 2ms/step - 15445531.
0000 - mean_absolute_error: 3068.8623 - val_loss: 12117602.0000 -
val_mean_absolute_error: 3480.5022
294 Epoch 147/598
295 30/30 [=====] - 0s 2ms/step - loss: 15540747.
0000 - mean_absolute_error: 3094.9175 - val_loss: 12109117.0000 -
val_mean_absolute_error: 3479.2529
296 Epoch 148/598
297 30/30 [=====] - 0s 2ms/step - loss: 15465805.
0000 - mean_absolute_error: 3102.6328 - val_loss: 11863414.0000 -
val_mean_absolute_error: 3443.7407
298 Epoch 149/598
299 30/30 [=====] - 0s 2ms/step - loss: 15743795.
0000 - mean_absolute_error: 3173.5415 - val_loss: 11613803.0000 -
```

```
299 val_mean_absolute_error: 3407.2991
300 Epoch 150/598
301 30/30 [=====] - 0s 2ms/step - Loss: 14835411.
0000 - mean_absolute_error: 3020.9128 - val_loss: 11419029.0000 -
val_mean_absolute_error: 3378.7078
302 Epoch 151/598
303 30/30 [=====] - 0s 2ms/step - Loss: 15044807.
0000 - mean_absolute_error: 3072.2920 - val_loss: 11397252.0000 -
val_mean_absolute_error: 3375.4766
304 Epoch 152/598
305 30/30 [=====] - 0s 2ms/step - Loss: 14857708.
0000 - mean_absolute_error: 3048.6616 - val_loss: 11364955.0000 -
val_mean_absolute_error: 3370.6990
306 Epoch 153/598
307 30/30 [=====] - 0s 4ms/step - Loss: 14011740.
0000 - mean_absolute_error: 2897.5837 - val_loss: 11311677.0000 -
val_mean_absolute_error: 3362.7859
308 Epoch 154/598
309 30/30 [=====] - 0s 2ms/step - Loss: 13823280.
0000 - mean_absolute_error: 2878.2385 - val_loss: 11177325.0000 -
val_mean_absolute_error: 3342.6838
310 Epoch 155/598
311 30/30 [=====] - 0s 2ms/step - Loss: 13639811.
```

```
311 0000 - mean_absolute_error: 2856.8496 - val_loss: 11057229.0000 -
    val_mean_absolute_error: 3324.7356
312 Epoch 156/598
313 30/30 [=====] - 0s 2ms/step - Loss: 13201256.
0000 - mean_absolute_error: 2797.0996 - val_loss: 10861022.0000 -
    val_mean_absolute_error: 3295.0967
314 Epoch 157/598
315 30/30 [=====] - 0s 2ms/step - Loss: 14490723.
0000 - mean_absolute_error: 3061.4187 - val_loss: 10733980.0000 -
    val_mean_absolute_error: 3275.7671
316 Epoch 158/598
317 30/30 [=====] - 0s 2ms/step - Loss: 13968199.
0000 - mean_absolute_error: 2972.7605 - val_loss: 10516410.0000 -
    val_mean_absolute_error: 3242.3860
318 Epoch 159/598
319 30/30 [=====] - 0s 2ms/step - Loss: 13794030.
0000 - mean_absolute_error: 2958.9678 - val_loss: 10468764.0000 -
    val_mean_absolute_error: 3235.0122
320 Epoch 160/598
321 30/30 [=====] - 0s 2ms/step - Loss: 13411736.
0000 - mean_absolute_error: 2888.2004 - val_loss: 10453215.0000 -
    val_mean_absolute_error: 3232.6213
322 Epoch 161/598
```

```
323 30/30 [=====] - 0s 2ms/step - loss: 13510346.  
0000 - mean_absolute_error: 2937.1846 - val_loss: 10384290.0000 -  
val_mean_absolute_error: 3221.9102  
324 Epoch 162/598  
325 30/30 [=====] - 0s 2ms/step - loss: 13525439.  
0000 - mean_absolute_error: 2956.4492 - val_loss: 10154997.0000 -  
val_mean_absolute_error: 3186.1660  
326 Epoch 163/598  
327 30/30 [=====] - 0s 2ms/step - loss: 12235915.  
0000 - mean_absolute_error: 2703.6626 - val_loss: 10050286.0000 -  
val_mean_absolute_error: 3169.6931  
328 Epoch 164/598  
329 30/30 [=====] - 0s 2ms/step - loss: 12859166.  
0000 - mean_absolute_error: 2851.7117 - val_loss: 9997909.0000 -  
val_mean_absolute_error: 3161.3499  
330 Epoch 165/598  
331 30/30 [=====] - 0s 2ms/step - loss: 12542070.  
0000 - mean_absolute_error: 2798.5068 - val_loss: 9727496.0000 -  
val_mean_absolute_error: 3118.3569  
332 Epoch 166/598  
333 30/30 [=====] - 0s 2ms/step - loss: 12108190.  
0000 - mean_absolute_error: 2735.9695 - val_loss: 9702373.0000 -  
val_mean_absolute_error: 3114.3135
```

```
334 Epoch 167/598
335 30/30 [=====] - 0s 2ms/step - loss: 12311107.
0000 - mean_absolute_error: 2787.8325 - val_loss: 9568748.0000 -
val_mean_absolute_error: 3092.8015

336 Epoch 168/598
337 30/30 [=====] - 0s 2ms/step - loss: 12246119.
0000 - mean_absolute_error: 2788.9822 - val_loss: 9483469.0000 -
val_mean_absolute_error: 3078.9778

338 Epoch 169/598
339 30/30 [=====] - 0s 2ms/step - loss: 12641147.
0000 - mean_absolute_error: 2888.9966 - val_loss: 9386049.0000 -
val_mean_absolute_error: 3063.1213

340 Epoch 170/598
341 30/30 [=====] - 0s 2ms/step - loss: 11414610.
0000 - mean_absolute_error: 2656.5269 - val_loss: 9201527.0000 -
val_mean_absolute_error: 3032.8491

342 Epoch 171/598
343 30/30 [=====] - 0s 2ms/step - loss: 11439258.
0000 - mean_absolute_error: 2673.9614 - val_loss: 8985787.0000 -
val_mean_absolute_error: 2997.0398

344 Epoch 172/598
345 30/30 [=====] - 0s 2ms/step - loss: 10797482.
0000 - mean_absolute_error: 2549.5171 - val_loss: 9041298.0000 -
```

```
345 val_mean_absolute_error: 3006.2734
346 Epoch 173/598
347 30/30 [=====] - 0s 2ms/step - Loss: 10714385.
0000 - mean_absolute_error: 2547.8879 - val_loss: 8776634.0000 -
val_mean_absolute_error: 2961.9741
348 Epoch 174/598
349 30/30 [=====] - 0s 2ms/step - Loss: 10968281.
0000 - mean_absolute_error: 2625.7769 - val_loss: 8750738.0000 -
val_mean_absolute_error: 2957.5925
350 Epoch 175/598
351 30/30 [=====] - 0s 2ms/step - Loss: 10923263.
0000 - mean_absolute_error: 2625.4028 - val_loss: 8577630.0000 -
val_mean_absolute_error: 2928.1746
352 Epoch 176/598
353 30/30 [=====] - 0s 2ms/step - Loss: 10112161.
0000 - mean_absolute_error: 2457.7563 - val_loss: 8549029.0000 -
val_mean_absolute_error: 2923.2527
354 Epoch 177/598
355 30/30 [=====] - 0s 2ms/step - Loss: 10790100.
0000 - mean_absolute_error: 2624.7649 - val_loss: 8309395.5000 -
val_mean_absolute_error: 2881.9785
356 Epoch 178/598
357 30/30 [=====] - 0s 2ms/step - Loss: 10446558.
```

```
357 0000 - mean_absolute_error: 2577.2478 - val_loss: 8325731.0000 -
    val_mean_absolute_error: 2884.8503
358 Epoch 179/598
359 30/30 [=====] - 0s 2ms/step - loss: 9679246.
0000 - mean_absolute_error: 2409.0608 - val_loss: 8217018.5000 -
    val_mean_absolute_error: 2865.9470
360 Epoch 180/598
361 30/30 [=====] - 0s 2ms/step - loss: 9695303.
0000 - mean_absolute_error: 2434.3994 - val_loss: 7989537.0000 -
    val_mean_absolute_error: 2825.9861
362 Epoch 181/598
363 30/30 [=====] - 0s 2ms/step - loss: 9990443.
0000 - mean_absolute_error: 2514.3499 - val_loss: 7929164.5000 -
    val_mean_absolute_error: 2815.2869
364 Epoch 182/598
365 30/30 [=====] - 0s 2ms/step - loss: 10041010.
0000 - mean_absolute_error: 2542.7842 - val_loss: 7926169.0000 -
    val_mean_absolute_error: 2814.7195
366 Epoch 183/598
367 30/30 [=====] - 0s 2ms/step - loss: 9805069.
0000 - mean_absolute_error: 2516.0515 - val_loss: 7736084.0000 -
    val_mean_absolute_error: 2780.7795
368 Epoch 184/598
```

```
369 30/30 [=====] - 0s 2ms/step - loss: 9284305.  
0000 - mean_absolute_error: 2403.0029 - val_loss: 7660961.0000 -  
val_mean_absolute_error: 2767.1973  
370 Epoch 185/598  
371 30/30 [=====] - 0s 2ms/step - loss: 8958928.  
0000 - mean_absolute_error: 2341.8511 - val_loss: 7498823.0000 -  
val_mean_absolute_error: 2737.7048  
372 Epoch 186/598  
373 30/30 [=====] - 0s 2ms/step - loss: 8791940.  
0000 - mean_absolute_error: 2335.6816 - val_loss: 7296891.5000 -  
val_mean_absolute_error: 2700.6628  
374 Epoch 187/598  
375 30/30 [=====] - 0s 2ms/step - loss: 8895860.  
0000 - mean_absolute_error: 2368.4705 - val_loss: 7261639.5000 -  
val_mean_absolute_error: 2694.0876  
376 Epoch 188/598  
377 30/30 [=====] - 0s 2ms/step - loss: 8362433.  
0000 - mean_absolute_error: 2244.1462 - val_loss: 7130394.5000 -  
val_mean_absolute_error: 2669.6533  
378 Epoch 189/598  
379 30/30 [=====] - 0s 2ms/step - loss: 8502218.  
0000 - mean_absolute_error: 2299.6580 - val_loss: 7117733.0000 -  
val_mean_absolute_error: 2667.2698
```

```
380 Epoch 190/598
381 30/30 [=====] - 0s 2ms/step - loss: 8809787.
0000 - mean_absolute_error: 2387.3914 - val_loss: 6922535.5000 -
val_mean_absolute_error: 2630.3818

382 Epoch 191/598
383 30/30 [=====] - 0s 2ms/step - loss: 8263463.
0000 - mean_absolute_error: 2281.6858 - val_loss: 6830659.5000 -
val_mean_absolute_error: 2612.8369

384 Epoch 192/598
385 30/30 [=====] - 0s 2ms/step - loss: 8031019.
0000 - mean_absolute_error: 2231.1450 - val_loss: 6765376.5000 -
val_mean_absolute_error: 2600.3655

386 Epoch 193/598
387 30/30 [=====] - 0s 2ms/step - loss: 8055710.
0000 - mean_absolute_error: 2252.5247 - val_loss: 6696249.0000 -
val_mean_absolute_error: 2587.0378

388 Epoch 194/598
389 30/30 [=====] - 0s 2ms/step - loss: 7891836.
5000 - mean_absolute_error: 2233.9893 - val_loss: 6500950.5000 -
val_mean_absolute_error: 2549.0374

390 Epoch 195/598
391 30/30 [=====] - 0s 2ms/step - loss: 7664614.
5000 - mean_absolute_error: 2184.4604 - val_loss: 6294181.5000 -
```

```
391 val_mean_absolute_error: 2508.1138
392 Epoch 196/598
393 30/30 [=====] - 0s 2ms/step - loss: 7368825.
5000 - mean_absolute_error: 2132.2180 - val_loss: 6263075.5000 -
val_mean_absolute_error: 2501.9004
394 Epoch 197/598
395 30/30 [=====] - 0s 2ms/step - loss: 7196932.
0000 - mean_absolute_error: 2102.1211 - val_loss: 6215304.0000 -
val_mean_absolute_error: 2492.3831
396 Epoch 198/598
397 30/30 [=====] - 0s 2ms/step - loss: 7533944.
0000 - mean_absolute_error: 2207.4622 - val_loss: 6137400.0000 -
val_mean_absolute_error: 2476.6470
398 Epoch 199/598
399 30/30 [=====] - 0s 2ms/step - loss: 7356967.
0000 - mean_absolute_error: 2182.3372 - val_loss: 6191147.0000 -
val_mean_absolute_error: 2487.5215
400 Epoch 200/598
401 30/30 [=====] - 0s 2ms/step - loss: 7086398.
5000 - mean_absolute_error: 2121.3042 - val_loss: 5946616.0000 -
val_mean_absolute_error: 2437.8752
402 Epoch 201/598
403 30/30 [=====] - 0s 2ms/step - loss: 6846696.
```

```
403 0000 - mean_absolute_error: 2076.7668 - val_loss: 5877770.5000 -
    val_mean_absolute_error: 2423.7090
404 Epoch 202/598
405 30/30 [=====] - 0s 2ms/step - loss: 6889561.
    0000 - mean_absolute_error: 2111.8896 - val_loss: 5755544.0000 -
    val_mean_absolute_error: 2398.3269
406 Epoch 203/598
407 30/30 [=====] - 0s 2ms/step - loss: 6864639.
    5000 - mean_absolute_error: 2117.7771 - val_loss: 5457853.5000 -
    val_mean_absolute_error: 2335.4636
408 Epoch 204/598
409 30/30 [=====] - 0s 2ms/step - loss: 6625499.
    5000 - mean_absolute_error: 2076.1536 - val_loss: 5537976.0000 -
    val_mean_absolute_error: 2352.5823
410 Epoch 205/598
411 30/30 [=====] - 0s 2ms/step - loss: 6526634.
    5000 - mean_absolute_error: 2062.8320 - val_loss: 5475532.5000 -
    val_mean_absolute_error: 2339.2275
412 Epoch 206/598
413 30/30 [=====] - 0s 2ms/step - loss: 5981629.
    0000 - mean_absolute_error: 1914.5220 - val_loss: 5352454.0000 -
    val_mean_absolute_error: 2312.8130
414 Epoch 207/598
```

```
415 30/30 [=====] - 0s 2ms/step - loss: 5736541.  
0000 - mean_absolute_error: 1870.0261 - val_loss: 5254093.0000 -  
val_mean_absolute_error: 2291.2612  
416 Epoch 208/598  
417 30/30 [=====] - 0s 2ms/step - loss: 6115710.  
0000 - mean_absolute_error: 1983.0374 - val_loss: 5016115.5000 -  
val_mean_absolute_error: 2238.9236  
418 Epoch 209/598  
419 30/30 [=====] - 0s 2ms/step - loss: 5738770.  
0000 - mean_absolute_error: 1902.8925 - val_loss: 4925089.5000 -  
val_mean_absolute_error: 2218.5034  
420 Epoch 210/598  
421 30/30 [=====] - 0s 2ms/step - loss: 5749938.  
0000 - mean_absolute_error: 1913.4329 - val_loss: 4978482.5000 -  
val_mean_absolute_error: 2230.4883  
422 Epoch 211/598  
423 30/30 [=====] - 0s 2ms/step - loss: 5401086.  
0000 - mean_absolute_error: 1815.9241 - val_loss: 4837910.0000 -  
val_mean_absolute_error: 2198.7605  
424 Epoch 212/598  
425 30/30 [=====] - 0s 2ms/step - loss: 5514010.  
0000 - mean_absolute_error: 1883.8107 - val_loss: 4767762.5000 -  
val_mean_absolute_error: 2182.7563
```

```
426 Epoch 213/598
427 30/30 [=====] - 0s 2ms/step - loss: 5516632.
    0000 - mean_absolute_error: 1879.9139 - val_loss: 4661545.0000 -
    val_mean_absolute_error: 2158.2578
428 Epoch 214/598
429 30/30 [=====] - 0s 2ms/step - loss: 5267559.
    5000 - mean_absolute_error: 1843.8682 - val_loss: 4543231.0000 -
    val_mean_absolute_error: 2130.6980
430 Epoch 215/598
431 30/30 [=====] - 0s 2ms/step - loss: 5052349.
    0000 - mean_absolute_error: 1772.7456 - val_loss: 4451819.0000 -
    val_mean_absolute_error: 2109.1409
432 Epoch 216/598
433 30/30 [=====] - 0s 2ms/step - loss: 4770479.
    0000 - mean_absolute_error: 1719.0319 - val_loss: 4473877.5000 -
    val_mean_absolute_error: 2114.3293
434 Epoch 217/598
435 30/30 [=====] - 0s 2ms/step - loss: 4817902.
    5000 - mean_absolute_error: 1742.0157 - val_loss: 4319288.5000 -
    val_mean_absolute_error: 2077.4319
436 Epoch 218/598
437 30/30 [=====] - 0s 2ms/step - loss: 4660675.
    0000 - mean_absolute_error: 1694.7476 - val_loss: 4211570.5000 -
```

```
437 val_mean_absolute_error: 2051.3992
438 Epoch 219/598
439 30/30 [=====] - 0s 2ms/step - loss: 4529877.
0000 - mean_absolute_error: 1673.8442 - val_loss: 4176139.7500 -
val_mean_absolute_error: 2042.7455
440 Epoch 220/598
441 30/30 [=====] - 0s 2ms/step - loss: 4338883.
0000 - mean_absolute_error: 1631.1527 - val_loss: 4067325.2500 -
val_mean_absolute_error: 2015.9364
442 Epoch 221/598
443 30/30 [=====] - 0s 2ms/step - loss: 4338883.
0000 - mean_absolute_error: 1748.4883 - val_loss: 4030803.5000 -
val_mean_absolute_error: 2006.8538
444 Epoch 222/598
445 30/30 [=====] - 0s 2ms/step - loss: 4371905.
5000 - mean_absolute_error: 1677.8503 - val_loss: 3850623.7500 -
val_mean_absolute_error: 1961.4467
446 Epoch 223/598
447 30/30 [=====] - 0s 2ms/step - loss: 4097674.
0000 - mean_absolute_error: 1590.8429 - val_loss: 3819309.5000 -
val_mean_absolute_error: 1953.4385
448 Epoch 224/598
449 30/30 [=====] - 0s 2ms/step - loss: 4158719.
```

```
449 0000 - mean_absolute_error: 1632.5055 - val_loss: 3719366.5000 -
    val_mean_absolute_error: 1927.4127
450 Epoch 225/598
451 30/30 [=====] - 0s 2ms/step - Loss: 3939824.
    7500 - mean_absolute_error: 1573.9828 - val_loss: 3683922.0000 -
    val_mean_absolute_error: 1918.3781
452 Epoch 226/598
453 30/30 [=====] - 0s 2ms/step - Loss: 3850175.
    0000 - mean_absolute_error: 1551.1665 - val_loss: 3677596.0000 -
    val_mean_absolute_error: 1916.7449
454 Epoch 227/598
455 30/30 [=====] - 0s 2ms/step - Loss: 3851044.
    5000 - mean_absolute_error: 1569.2111 - val_loss: 3524912.5000 -
    val_mean_absolute_error: 1876.4811
456 Epoch 228/598
457 30/30 [=====] - 0s 2ms/step - Loss: 3692973.
    7500 - mean_absolute_error: 1533.8121 - val_loss: 3461760.0000 -
    val_mean_absolute_error: 1859.6725
458 Epoch 229/598
459 30/30 [=====] - 0s 2ms/step - Loss: 3714653.
    0000 - mean_absolute_error: 1554.2441 - val_loss: 3414374.0000 -
    val_mean_absolute_error: 1846.8679
460 Epoch 230/598
```

```
461 30/30 [=====] - 0s 3ms/step - loss: 3626102.  
7500 - mean_absolute_error: 1524.1024 - val_loss: 3306646.0000 -  
val_mean_absolute_error: 1817.3845  
462 Epoch 231/598  
463 30/30 [=====] - 0s 2ms/step - loss: 3515935.  
2500 - mean_absolute_error: 1508.2524 - val_loss: 3311482.0000 -  
val_mean_absolute_error: 1818.5238  
464 Epoch 232/598  
465 30/30 [=====] - 0s 2ms/step - loss: 3365103.  
2500 - mean_absolute_error: 1464.2261 - val_loss: 3182542.5000 -  
val_mean_absolute_error: 1782.7869  
466 Epoch 233/598  
467 30/30 [=====] - 0s 2ms/step - loss: 3191134.  
7500 - mean_absolute_error: 1411.4152 - val_loss: 3084625.0000 -  
val_mean_absolute_error: 1755.0706  
468 Epoch 234/598  
469 30/30 [=====] - 0s 2ms/step - loss: 3229449.  
5000 - mean_absolute_error: 1444.2439 - val_loss: 3073335.2500 -  
val_mean_absolute_error: 1752.0876  
470 Epoch 235/598  
471 30/30 [=====] - 0s 2ms/step - loss: 3161590.  
5000 - mean_absolute_error: 1422.8185 - val_loss: 3040844.7500 -  
val_mean_absolute_error: 1742.5725
```

```
472 Epoch 236/598
473 30/30 [=====] - 0s 2ms/step - loss: 2954120.
5000 - mean_absolute_error: 1365.1005 - val_loss: 2926669.2500 -
val_mean_absolute_error: 1709.4476
474 Epoch 237/598
475 30/30 [=====] - 0s 2ms/step - loss: 2775375.
5000 - mean_absolute_error: 1300.2755 - val_loss: 2835308.7500 -
val_mean_absolute_error: 1682.7371
476 Epoch 238/598
477 30/30 [=====] - 0s 2ms/step - loss: 2654292.
2500 - mean_absolute_error: 1256.3079 - val_loss: 2861829.5000 -
val_mean_absolute_error: 1690.1290
478 Epoch 239/598
479 30/30 [=====] - 0s 2ms/step - loss: 2647407.
7500 - mean_absolute_error: 1270.3838 - val_loss: 2678164.5000 -
val_mean_absolute_error: 1635.4100
480 Epoch 240/598
481 30/30 [=====] - 0s 2ms/step - loss: 2598199.
5000 - mean_absolute_error: 1264.5734 - val_loss: 2605536.5000 -
val_mean_absolute_error: 1612.8507
482 Epoch 241/598
483 30/30 [=====] - 0s 2ms/step - loss: 2467710.
0000 - mean_absolute_error: 1224.0566 - val_loss: 2683850.5000 -
```

```
483 val_mean_absolute_error: 1636.8768
484 Epoch 242/598
485 30/30 [=====] - 0s 2ms/step - loss: 2420862.
5000 - mean_absolute_error: 1219.7490 - val_loss: 2562111.7500 -
val_mean_absolute_error: 1599.4745
486 Epoch 243/598
487 30/30 [=====] - 0s 2ms/step - loss: 2410051.
0000 - mean_absolute_error: 1229.9344 - val_loss: 2476670.2500 -
val_mean_absolute_error: 1572.3719
488 Epoch 244/598
489 30/30 [=====] - 0s 2ms/step - loss: 2305222.
2500 - mean_absolute_error: 1187.7747 - val_loss: 2438360.2500 -
val_mean_absolute_error: 1560.2740
490 Epoch 245/598
491 30/30 [=====] - 0s 2ms/step - loss: 2223580.
0000 - mean_absolute_error: 1176.9865 - val_loss: 2306482.2500 -
val_mean_absolute_error: 1517.4954
492 Epoch 246/598
493 30/30 [=====] - 0s 2ms/step - loss: 2107179.
7500 - mean_absolute_error: 1134.4731 - val_loss: 2291820.5000 -
val_mean_absolute_error: 1512.5123
494 Epoch 247/598
495 30/30 [=====] - 0s 2ms/step - loss: 2126630.
```

```
495 2500 - mean_absolute_error: 1149.7584 - val_loss: 2251927.7500 -
    val_mean_absolute_error: 1498.6803
496 Epoch 248/598
497 30/30 [=====] - 0s 2ms/step - Loss: 2040753.
    8750 - mean_absolute_error: 1120.8314 - val_loss: 2129601.5000 -
    val_mean_absolute_error: 1457.1715
498 Epoch 249/598
499 30/30 [=====] - 0s 2ms/step - Loss: 1931040.
    5000 - mean_absolute_error: 1087.8015 - val_loss: 2112996.0000 -
    val_mean_absolute_error: 1451.7916
500 Epoch 250/598
501 30/30 [=====] - 0s 2ms/step - Loss: 1902805.
    1250 - mean_absolute_error: 1065.1982 - val_loss: 2103000.0000 -
    val_mean_absolute_error: 1448.4362
502 Epoch 251/598
503 30/30 [=====] - 0s 2ms/step - Loss: 1704384.
    7500 - mean_absolute_error: 995.8513 - val_loss: 2082335.7500 -
    val_mean_absolute_error: 1440.8398
504 Epoch 252/598
505 30/30 [=====] - 0s 2ms/step - Loss: 1733343.
    0000 - mean_absolute_error: 1018.9899 - val_loss: 2085942.1250 -
    val_mean_absolute_error: 1441.8696
506 Epoch 253/598
```

```
507 30/30 [=====] - 0s 2ms/step - loss: 1772081.  
5000 - mean_absolute_error: 1045.5156 - val_loss: 1966987.6250 -  
val_mean_absolute_error: 1400.9999  
508 Epoch 254/598  
509 30/30 [=====] - 0s 2ms/step - loss: 1749374.  
6250 - mean_absolute_error: 1046.4895 - val_loss: 1918008.6250 -  
val_mean_absolute_error: 1382.5380  
510 Epoch 255/598  
511 30/30 [=====] - 0s 2ms/step - loss: 1643173.  
7500 - mean_absolute_error: 1004.3255 - val_loss: 1841163.0000 -  
val_mean_absolute_error: 1353.9498  
512 Epoch 256/598  
513 30/30 [=====] - 0s 2ms/step - loss: 1596970.  
2500 - mean_absolute_error: 995.4284 - val_loss: 1821677.3750 -  
val_mean_absolute_error: 1347.3663  
514 Epoch 257/598  
515 30/30 [=====] - 0s 2ms/step - loss: 1520623.  
7500 - mean_absolute_error: 955.4985 - val_loss: 1809289.6250 -  
val_mean_absolute_error: 1342.2998  
516 Epoch 258/598  
517 30/30 [=====] - 0s 2ms/step - loss: 1432897.  
8750 - mean_absolute_error: 926.5072 - val_loss: 1801744.1250 -  
val_mean_absolute_error: 1339.8564
```

```
518 Epoch 259/598
519 30/30 [=====] - 0s 2ms/step - loss: 1458454.
3750 - mean_absolute_error: 952.1236 - val_loss: 1746430.1250 -
val_mean_absolute_error: 1318.9253

520 Epoch 260/598
521 30/30 [=====] - 0s 2ms/step - loss: 1369611.
3750 - mean_absolute_error: 909.4619 - val_loss: 1633077.6250 -
val_mean_absolute_error: 1275.8922

522 Epoch 261/598
523 30/30 [=====] - 0s 2ms/step - loss: 1341385.
8750 - mean_absolute_error: 904.7587 - val_loss: 1606052.2500 -
val_mean_absolute_error: 1265.0922

524 Epoch 262/598
525 30/30 [=====] - 0s 2ms/step - loss: 1255577.
1250 - mean_absolute_error: 868.2518 - val_loss: 1565904.5000 -
val_mean_absolute_error: 1248.2932

526 Epoch 263/598
527 30/30 [=====] - 0s 2ms/step - loss: 1211056.
3750 - mean_absolute_error: 849.7469 - val_loss: 1498003.3750 -
val_mean_absolute_error: 1221.3483

528 Epoch 264/598
529 30/30 [=====] - 0s 2ms/step - loss: 1219479.
3750 - mean_absolute_error: 865.8566 - val_loss: 1478686.6250 -
```

```
529 val_mean_absolute_error: 1213.4432
530 Epoch 265/598
531 30/30 [=====] - 0s 2ms/step - Loss: 1167695.
5000 - mean_absolute_error: 838.8178 - val_loss: 1432691.5000 -
val_mean_absolute_error: 1194.3479
532 Epoch 266/598
533 30/30 [=====] - 0s 2ms/step - Loss: 1026992.
5000 - mean_absolute_error: 769.6676 - val_loss: 1427930.6250 -
val_mean_absolute_error: 1191.8817
534 Epoch 267/598
535 30/30 [=====] - 0s 2ms/step - Loss: 1040956.
1250 - mean_absolute_error: 784.2009 - val_loss: 1378290.3750 -
val_mean_absolute_error: 1170.3492
536 Epoch 268/598
537 30/30 [=====] - 0s 2ms/step - Loss: 1022463.
3750 - mean_absolute_error: 780.2056 - val_loss: 1320523.1250 -
val_mean_absolute_error: 1145.1039
538 Epoch 269/598
539 30/30 [=====] - 0s 2ms/step - Loss: 1001829.
0625 - mean_absolute_error: 768.7447 - val_loss: 1296390.6250 -
val_mean_absolute_error: 1134.3662
540 Epoch 270/598
541 30/30 [=====] - 0s 2ms/step - Loss: 979987.1250
```

```
541 - mean_absolute_error: 768.5554 - val_loss: 1233009.0000 -
      val_mean_absolute_error: 1106.9861
542 Epoch 271/598
543 30/30 [=====] - 0s 2ms/step - loss: 952679.5625
      - mean_absolute_error: 756.9568 - val_loss: 1219709.1250 -
      val_mean_absolute_error: 1100.3127
544 Epoch 272/598
545 30/30 [=====] - 0s 2ms/step - val_loss: 851489.1250
      - mean_absolute_error: 700.5822 - val_loss: 1186618.3750 -
      val_mean_absolute_error: 1085.6636
546 Epoch 273/598
547 30/30 [=====] - 0s 3ms/step - loss: 855244.7500
      - mean_absolute_error: 1143033.2500 -
      val_mean_absolute_error: 1065.5795
548 Epoch 274/598
549 30/30 [=====] - 0s 2ms/step - loss: 799680.1250
      - mean_absolute_error: 684.2880 - val_loss: 1146607.7500 -
      val_mean_absolute_error: 1066.4744
550 Epoch 275/598
551 30/30 [=====] - 0s 2ms/step - loss: 770550.8750
      - mean_absolute_error: 673.4178 - val_loss: 1054589.2500 -
      val_mean_absolute_error: 1022.5460
552 Epoch 276/598
```

```
553 30/30 [=====] - 0s 2ms/step - loss: 751113.2500
  - mean_absolute_error: 659.3633 - val_loss: 1016256.4375 -
  val_mean_absolute_error: 1004.5135

554 Epoch 277/598
555 30/30 [=====] - 0s 2ms/step - loss: 682426.0000
  - mean_absolute_error: 620.3674 - val_loss: 991866.0625 -
  val_mean_absolute_error: 991.0223

556 Epoch 278/598
557 30/30 [=====] - 0s 2ms/step - loss: 727093.3750
  - mean_absolute_error: 661.7802 - val_loss: 936786.4375 -
  val_mean_absolute_error: 963.7471

558 Epoch 279/598
559 30/30 [=====] - 0s 2ms/step - loss: 666505.0000
  - mean_absolute_error: 615.8052 - val_loss: 893190.0625 -
  val_mean_absolute_error: 941.2105

560 Epoch 280/598
561 30/30 [=====] - 0s 2ms/step - loss: 620779.9375
  - mean_absolute_error: 597.9929 - val_loss: 883661.7500 -
  val_mean_absolute_error: 935.6472

562 Epoch 281/598
563 30/30 [=====] - 0s 2ms/step - loss: 606622.8750
  - mean_absolute_error: 592.8146 - val_loss: 854346.2500 -
  val_mean_absolute_error: 919.7303
```

```
564 Epoch 282/598
565 30/30 [=====] - 0s 2ms/step - loss: 607111.8125
      - mean_absolute_error: 597.6877 - val_loss: 811908.6875 -
      val_mean_absolute_error: 896.6126
566 Epoch 283/598
567 30/30 [=====] - 0s 2ms/step - val_loss: 567581.0000
      - mean_absolute_error: 581.2222 - val_mean_absolute_error: 885.4861
568 Epoch 284/598
569 30/30 [=====] - 0s 2ms/step - val_loss: 798053.6875 -
      - mean_absolute_error: 583.9592 - val_mean_absolute_error: 888.4861
570 Epoch 285/598
571 30/30 [=====] - 0s 2ms/step - val_loss: 718915.1875 -
      - mean_absolute_error: 567.5784 - val_mean_absolute_error: 843.2209
572 Epoch 286/598
573 30/30 [=====] - 0s 2ms/step - val_loss: 536248.8750
      - mean_absolute_error: 562.2576 - val_mean_absolute_error: 839.0278
574 Epoch 287/598
575 30/30 [=====] - 0s 2ms/step - loss: 518583.5625
      - mean_absolute_error: 562.2724 - val_loss: 694496.8750 -
```

```
575 val_mean_absolute_error: 827.8996
576 Epoch 288/598
577 30/30 [=====] - 0s 2ms/step - Loss: 481899.2812
    - mean_absolute_error: 537.5862 - val_loss: 673303.2500 -
        val_mean_absolute_error: 814.8109
578 Epoch 289/598
579 30/30 [=====] - 0s 2ms/step - Loss: 459966.4688
    - mean_absolute_error: 521.9847 - val_loss: 643925.0625 -
        val_mean_absolute_error: 796.7682
580 Epoch 290/598
581 30/30 [=====] - 0s 2ms/step - Loss: 470709.9062
    - mean_absolute_error: 538.4249 - val_loss: 631141.0625 -
        val_mean_absolute_error: 788.2081
582 Epoch 291/598
583 30/30 [=====] - 0s 2ms/step - Loss: 447425.0000
    - mean_absolute_error: 525.9515 - val_loss: 600085.0000 -
        val_mean_absolute_error: 768.2637
584 Epoch 292/598
585 30/30 [=====] - 0s 2ms/step - Loss: 421826.0000
    - mean_absolute_error: 506.5419 - val_loss: 583205.6250 -
        val_mean_absolute_error: 756.4567
586 Epoch 293/598
587 30/30 [=====] - 0s 2ms/step - Loss: 438136.8750
```

```
587 - mean_absolute_error: 527.2571 - val_loss: 563450.3750 -
val_mean_absolute_error: 743.4458
588 Epoch 294/598
589 30/30 [=====] - 0s 2ms/step - Loss: 415169.3750
- mean_absolute_error: 506.6562 - val_loss: 545078.0625 -
val_mean_absolute_error: 730.8490
590 Epoch 295/598
591 30/30 [=====] - 0s 2ms/step - val_loss: 516921.7188 -
- mean_absolute_error: 517.3186 - val_loss: 516921.7188 -
val_mean_absolute_error: 711.2968
592 Epoch 296/598
593 30/30 [=====] - 0s 2ms/step - val_loss: 509086.5938 -
- mean_absolute_error: 508.4167 - val_loss: 498400.2812 -
val_mean_absolute_error: 705.3488
594 Epoch 297/598
595 30/30 [=====] - 0s 2ms/step - Loss: 397766.2500
- mean_absolute_error: 489.3782 - val_loss: 381894.2500
val_mean_absolute_error: 697.2302
596 Epoch 298/598
597 30/30 [=====] - 0s 2ms/step - Loss: 378913.3750
- mean_absolute_error: 489.4559 - val_loss: 480398.5000 -
val_mean_absolute_error: 683.5361
598 Epoch 299/598
```

```
599 30/30 [=====] - 0s 2ms/step - loss: 360579.5938
  - mean_absolute_error: 480.2257 - val_loss: 460902.6250 -
  val_mean_absolute_error: 669.2591
600 Epoch 300/598
601 30/30 [=====] - 0s 2ms/step - loss: 358270.5938
  - mean_absolute_error: 476.8785 - val_loss: 446633.4375 -
  val_mean_absolute_error: 657.8472
602 Epoch 301/598
603 30/30 [=====] - 0s 2ms/step - loss: 358264.6250
  - mean_absolute_error: 479.5198 - val_loss: 436547.8438 -
  val_mean_absolute_error: 650.1398
604 Epoch 302/598
605 30/30 [=====] - 0s 2ms/step - loss: 3506669.8125
  - mean_absolute_error: 482.5254 - val_loss: 415812.5938 -
  val_mean_absolute_error: 633.9867
606 Epoch 303/598
607 30/30 [=====] - 0s 2ms/step - loss: 335322.0938
  - mean_absolute_error: 464.1107 - val_loss: 397153.7188 -
  val_mean_absolute_error: 618.5092
608 Epoch 304/598
609 30/30 [=====] - 0s 2ms/step - loss: 326585.9062
  - mean_absolute_error: 457.4249 - val_loss: 383781.7188 -
  val_mean_absolute_error: 607.6133
```

```
610 Epoch 305/598
611 30/30 [=====] - 0s 2ms/step - loss: 335335.0312
      - mean_absolute_error: 467.1505 - val_loss: 372847.2500 -
      val_mean_absolute_error: 598.2513
612 Epoch 306/598
613 30/30 [=====] - 0s 2ms/step - val_loss: 317572.8438
      - mean_absolute_error: 450.8936 - val_loss: 367135.3438 -
      val_mean_absolute_error: 592.7888
614 Epoch 307/598
615 30/30 [=====] - 0s 2ms/step - val_loss: 354346.0625 -
      - mean_absolute_error: 453.0023 - val_loss: 342387.9375 -
      val_mean_absolute_error: 581.9468
616 Epoch 308/598
617 30/30 [=====] - 0s 2ms/step - val_loss: 322652.8125
      - mean_absolute_error: 464.2040 - val_loss: 342387.9375 -
      val_mean_absolute_error: 571.0297
618 Epoch 309/598
619 30/30 [=====] - 0s 2ms/step - loss: 309894.3750
      - mean_absolute_error: 447.6992 - val_loss: 336853.5000 -
      val_mean_absolute_error: 565.6184
620 Epoch 310/598
621 30/30 [=====] - 0s 2ms/step - loss: 320128.0938
      - mean_absolute_error: 455.3989 - val_loss: 324970.9688 -
```

```
621 val_mean_absolute_error: 554.9526
622 Epoch 311/598
623 30/30 [=====] - 0s 2ms/step - Loss: 299294.0312
    - mean_absolute_error: 442.0853 - val_loss: 318127.9375 -
        val_mean_absolute_error: 548.0076
624 Epoch 312/598
625 30/30 [=====] - 0s 2ms/step - Loss: 309258.0938
    - mean_absolute_error: 448.6746 - val_loss: 302862.5938 -
        val_mean_absolute_error: 534.4290
626 Epoch 313/598
627 30/30 [=====] - 0s 2ms/step - Loss: 294731.7500
    - mean_absolute_error: 439.0243 - val_loss: 287222.6250 -
        val_mean_absolute_error: 520.0791
628 Epoch 314/598
629 30/30 [=====] - 0s 2ms/step - Loss: 283432.2500
    - mean_absolute_error: 428.9896 - val_loss: 277773.6562 -
        val_mean_absolute_error: 510.6661
630 Epoch 315/598
631 30/30 [=====] - 0s 2ms/step - Loss: 300662.7812
    - mean_absolute_error: 440.3788 - val_loss: 279670.7812 -
        val_mean_absolute_error: 511.4384
632 Epoch 316/598
633 30/30 [=====] - 0s 2ms/step - Loss: 283897.8438
```

```
633 - mean_absolute_error: 425.4254 - val_loss: 267404.3438 -
    val_mean_absolute_error: 499.7327
634 Epoch 317/598
635 30/30 [=====] - 0s 2ms/step - Loss: 289995.4375
    - mean_absolute_error: 428.2469 - val_loss: 264706.0625 -
    val_mean_absolute_error: 496.3813
636 Epoch 318/598
637 30/30 [=====] - 0s 2ms/step - Loss: 275939.5625
    - mean_absolute_error: 417.6261 - val_loss: 259249.8125 -
    val_mean_absolute_error: 490.5682
638 Epoch 319/598
639 30/30 [=====] - 0s 2ms/step - Loss: 283135.9062
    - mean_absolute_error: 422.4254 - val_loss: 252200.0625 -
    val_mean_absolute_error: 483.2694
640 Epoch 320/598
641 30/30 [=====] - 0s 2ms/step - Loss: 281178.4062
    - mean_absolute_error: 426.9726 - val_loss: 241654.2188 -
    val_mean_absolute_error: 472.3494
642 Epoch 321/598
643 30/30 [=====] - 0s 2ms/step - Loss: 280689.1250
    - mean_absolute_error: 416.7989 - val_loss: 245001.6094 -
    val_mean_absolute_error: 474.7629
644 Epoch 322/598
```

```
645 30/30 [=====] - 0s 2ms/step - loss: 274976.4062
  - mean_absolute_error: 416.9426 - val_loss: 234791.2031 -
  val_mean_absolute_error: 464.5135
646 Epoch 323/598
647 30/30 [=====] - 0s 2ms/step - loss: 264121.2188
  - mean_absolute_error: 398.2664 - val_loss: 224180.0312 -
  val_mean_absolute_error: 453.8718
648 Epoch 324/598
649 30/30 [=====] - 0s 2ms/step - loss: 282559.1875
  - mean_absolute_error: 421.2955 - val_loss: 228181.6875 -
  val_mean_absolute_error: 456.7720
650 Epoch 325/598
651 30/30 [=====] - 0s 2ms/step - loss: 279467.5312
  - mean_absolute_error: 417.9690 - val_loss: 222139.7969 -
  val_mean_absolute_error: 450.2797
652 Epoch 326/598
653 30/30 [=====] - 0s 2ms/step - loss: 269560.1875
  - mean_absolute_error: 402.7160 - val_loss: 220526.7969 -
  val_mean_absolute_error: 447.9500
654 Epoch 327/598
655 30/30 [=====] - 0s 2ms/step - loss: 280961.6250
  - mean_absolute_error: 420.0304 - val_loss: 222638.0781 -
  val_mean_absolute_error: 449.0178
```

```
656 Epoch 328/598
657 30/30 [=====] - 0s 2ms/step - loss: 274459.8125
    - mean_absolute_error: 408.0945 - val_loss: 213943.7500 -
    val_mean_absolute_error: 440.1519
658 Epoch 329/598
659 30/30 [=====] - 0s 2ms/step - loss: 271776.6250
    - mean_absolute_error: 409.2492 - val_loss: 212152.4062 -
    val_mean_absolute_error: 437.6947
660 Epoch 330/598
661 30/30 [=====] - 0s 2ms/step - loss: 274022.5625
    - mean_absolute_error: 411.4701 - val_loss: 207447.2500 -
    val_mean_absolute_error: 432.2060
662 Epoch 331/598
663 30/30 [=====] - 0s 2ms/step - loss: 278000.3125
    - mean_absolute_error: 415.3259 - val_loss: 213940.7969 -
    val_mean_absolute_error: 437.8054
664 Epoch 332/598
665 30/30 [=====] - 0s 2ms/step - loss: 280114.4688
    - mean_absolute_error: 420.3436 - val_loss: 192411.0781 -
    val_mean_absolute_error: 415.6991
666 Epoch 333/598
667 30/30 [=====] - 0s 2ms/step - loss: 276100.8125
    - mean_absolute_error: 409.3428 - val_loss: 194692.2188 -
    val_mean_absolute_error: 440.1519
```

```
667 val_mean_absolute_error: 417.5762
668 Epoch 334/598
669 30/30 [=====] - 0s 2ms/step - loss: 276912.5312
    - mean_absolute_error: 413.4401 - val_loss: 195892.1094 -
        val_mean_absolute_error: 418.1357
670 Epoch 335/598
671 30/30 [=====] - 0s 2ms/step - loss: 267233.2500
    - mean_absolute_error: 399.7547 - val_loss: 195278.8438 -
        val_mean_absolute_error: 416.9084
672 Epoch 336/598
673 30/30 [=====] - 0s 2ms/step - loss: 272570.5000
    - mean_absolute_error: 408.9444 - val_loss: 197398.0469 -
        val_mean_absolute_error: 418.4546
674 Epoch 337/598
675 30/30 [=====] - 0s 2ms/step - loss: 275182.0000
    - mean_absolute_error: 408.2377 - val_loss: 193429.1719 -
        val_mean_absolute_error: 414.0196
676 Epoch 338/598
677 30/30 [=====] - 0s 2ms/step - loss: 275886.3125
    - mean_absolute_error: 412.0208 - val_loss: 190909.4844 -
        val_mean_absolute_error: 410.6665
678 Epoch 339/598
679 30/30 [=====] - 0s 2ms/step - loss: 273393.3125
```

```
679  - mean_absolute_error: 406.0471 - val_loss: 190778.1250 -
    val_mean_absolute_error: 410.2817
680 Epoch 340/598
681 30/30 [=====] - 0s 2ms/step - Loss: 274761.7188
    - mean_absolute_error: 407.4124 - val_loss: 191195.4844 -
    val_mean_absolute_error: 410.2830
682 Epoch 341/598
683 30/30 [=====] - 0s 2ms/step - Loss: 273969.2500
    - mean_absolute_error: 408.4199 - val_loss: 182828.4844 -
    val_mean_absolute_error: 401.4084
684 Epoch 342/598
685 30/30 [=====] - 0s 2ms/step - Loss: 2700676.7500
    - mean_absolute_error: 404.9023 - val_loss: 177830.1094 -
    val_mean_absolute_error: 396.0681
686 Epoch 343/598
687 30/30 [=====] - 0s 2ms/step - Loss: 271678.3125
    - mean_absolute_error: 404.7363 - val_loss: 176294.8594 -
    val_mean_absolute_error: 394.2564
688 Epoch 344/598
689 30/30 [=====] - 0s 2ms/step - Loss: 2688818.3125
    - mean_absolute_error: 404.5085 - val_loss: 181133.8750 -
    val_mean_absolute_error: 398.9293
690 Epoch 345/598
```

```
691 30/30 [=====] - 0s 2ms/step - loss: 272670.50000
  - mean_absolute_error: 405.5883 - val_loss: 180871.7812 -
  val_mean_absolute_error: 398.4981
692 Epoch 346/598
693 30/30 [=====] - 0s 2ms/step - loss: 277421.0312
  - mean_absolute_error: 409.0859 - val_loss: 181220.1875 -
  val_mean_absolute_error: 398.3788
694 Epoch 347/598
695 30/30 [=====] - 0s 2ms/step - loss: 271444.3438
  - mean_absolute_error: 403.8420 - val_loss: 182741.8438 -
  val_mean_absolute_error: 399.8746
696 Epoch 348/598
697 30/30 [=====] - 0s 2ms/step - loss: 272883.8125
  - mean_absolute_error: 403.1168 - val_loss: 178529.3438 -
  val_mean_absolute_error: 395.6342
698 Epoch 349/598
699 30/30 [=====] - 0s 2ms/step - loss: 274698.1250
  - mean_absolute_error: 407.8463 - val_loss: 178712.5469 -
  val_mean_absolute_error: 395.4522
700 Epoch 350/598
701 30/30 [=====] - 0s 2ms/step - loss: 273814.1250
  - mean_absolute_error: 411.0509 - val_loss: 170881.9219 -
  val_mean_absolute_error: 386.6491
```

702	Epoch 351/598	
703	30/30	[=====] - 0s 2ms/step - loss: 266491.0625 - mean_absolute_error: 399.3450 - val_loss: 179094.4219 - val_mean_absolute_error: 395.3472
704	Epoch 352/598	
705	30/30	[=====] - 0s 2ms/step - loss: 267957.3750 - mean_absolute_error: 397.7141 - val_loss: 176011.0625 - val_mean_absolute_error: 392.1735
706	Epoch 353/598	
707	30/30	[=====] - 0s 2ms/step - loss: 275553.8750 - mean_absolute_error: 405.2473 - val_loss: 181278.8750 - val_mean_absolute_error: 397.3521
708	Epoch 354/598	
709	30/30	[=====] - 0s 2ms/step - loss: 275833.7188 - mean_absolute_error: 408.9804 - val_loss: 176153.9844 - val_mean_absolute_error: 391.9858
710	Epoch 355/598	
711	30/30	[=====] - 0s 2ms/step - loss: 270433.8750 - mean_absolute_error: 402.7993 - val_loss: 177820.3750 - val_mean_absolute_error: 393.1317
712	Epoch 356/598	
713	30/30	[=====] - 0s 2ms/step - loss: 273496.7812 - mean_absolute_error: 406.9044 - val_loss: 179840.7656 -

```
713 val_mean_absolute_error: 395.3842
714 Epoch 357/598
715 30/30 [=====] - 0s 2ms/step - Loss: 268609.6250
    - mean_absolute_error: 403.3053 - val_loss: 175900.2969 -
        val_mean_absolute_error: 391.2017
716 Epoch 358/598
717 30/30 [=====] - 0s 2ms/step - Loss: 273789.1562
    - mean_absolute_error: 405.4816 - val_loss: 176428.4688 -
        val_mean_absolute_error: 391.5110
718 Epoch 359/598
719 30/30 [=====] - 0s 2ms/step - Loss: 266749.4062
    - mean_absolute_error: 398.4944 - val_loss: 174400.4375 -
        val_mean_absolute_error: 389.4747
720 Epoch 360/598
721 30/30 [=====] - 0s 2ms/step - Loss: 274261.1250
    - mean_absolute_error: 405.2733 - val_loss: 164542.0469 -
        val_mean_absolute_error: 378.8317
722 Epoch 361/598
723 30/30 [=====] - 0s 2ms/step - Loss: 271513.3125
    - mean_absolute_error: 402.9496 - val_loss: 169639.7500 -
        val_mean_absolute_error: 384.1310
724 Epoch 362/598
725 30/30 [=====] - 0s 2ms/step - Loss: 268941.3125
```

```
725  - mean_absolute_error: 399.9305 - val_loss: 167143.0938 -
    val_mean_absolute_error: 381.6626
726 Epoch 363/598
727 30/30 [=====] - 0s 2ms/step - Loss: 275494.6250
    - mean_absolute_error: 406.4741 - val_loss: 170374.7969 -
    val_mean_absolute_error: 384.8380
728 Epoch 364/598
729 30/30 [=====] - 0s 2ms/step - Loss: 281287.2812
    - mean_absolute_error: 415.2648 - val_loss: 177499.2812 -
    val_mean_absolute_error: 392.0684
730 Epoch 365/598
731 30/30 [=====] - 0s 2ms/step - Loss: 274461.3125
    - mean_absolute_error: 408.3025 - val_loss: 169988.0156 -
    val_mean_absolute_error: 383.9432
732 Epoch 366/598
733 30/30 [=====] - 0s 2ms/step - Loss: 271871.3125
    - mean_absolute_error: 401.5856 - val_loss: 175094.3594 -
    val_mean_absolute_error: 389.2116
734 Epoch 367/598
735 30/30 [=====] - 0s 2ms/step - Loss: 273121.3438
    - mean_absolute_error: 408.3116 - val_loss: 169654.9219 -
    val_mean_absolute_error: 383.6496
736 Epoch 368/598
```

```
737 30/30 [=====] - 0s 2ms/step - loss: 272032.6875
  - mean_absolute_error: 404.3037 - val_loss: 169167.1094 -
  val_mean_absolute_error: 382.7644

738 Epoch 369/598
739 30/30 [=====] - 0s 2ms/step - loss: 268122.5625
  - mean_absolute_error: 402.4320 - val_loss: 157471.7969 -
  val_mean_absolute_error: 370.1227

740 Epoch 370/598
741 30/30 [=====] - 0s 2ms/step - loss: 270684.6562
  - mean_absolute_error: 401.4133 - val_loss: 175142.0469 -
  val_mean_absolute_error: 389.6982

742 Epoch 371/598
743 30/30 [=====] - 0s 2ms/step - loss: 276949.0938
  - mean_absolute_error: 412.3360 - val_loss: 170000.4844 -
  val_mean_absolute_error: 384.1292

744 Epoch 372/598
745 30/30 [=====] - 0s 2ms/step - loss: 270730.5312
  - mean_absolute_error: 401.3488 - val_loss: 167738.0156 -
  val_mean_absolute_error: 381.2549

746 Epoch 373/598
747 30/30 [=====] - 0s 2ms/step - loss: 272420.8438
  - mean_absolute_error: 401.1397 - val_loss: 167122.3594 -
  val_mean_absolute_error: 380.5890
```

```
748 Epoch 374/598
749 30/30 [=====] - 0s 2ms/step - loss: 272031.3750
    - mean_absolute_error: 397.2766 - val_loss: 170865.7500 -
    val_mean_absolute_error: 384.9902
    - mean_absolute_error: 407.4331 - val_loss: 172900.5000 -
    val_mean_absolute_error: 386.9870
750 Epoch 375/598
751 30/30 [=====] - 0s 2ms/step - loss: 272037.9375
    - mean_absolute_error: 402.8961 - val_loss: 172431.5781 -
    val_mean_absolute_error: 386.2717
752 Epoch 376/598
753 30/30 [=====] - 0s 2ms/step - loss: 274648.9688
    - mean_absolute_error: 411.5396 - val_loss: 171413.5312 -
    val_mean_absolute_error: 385.6413
754 Epoch 377/598
755 30/30 [=====] - 0s 2ms/step - loss: 278570.5000
    - mean_absolute_error: 406.3568 - val_loss: 170597.5781 -
    val_mean_absolute_error: 383.9626
756 Epoch 378/598
757 30/30 [=====] - 0s 2ms/step - loss: 273123.9062
    - mean_absolute_error: 416.3138 - val_loss: 165085.4688 -
    val_mean_absolute_error: 383.9626
758 Epoch 379/598
759 30/30 [=====] - 0s 2ms/step - loss: 279370.0000
    - mean_absolute_error: 416.3138 - val_loss: 165085.4688 -
```

```
759 val_mean_absolute_error: 377.7060
760 Epoch 380/598
761 30/30 [=====] - 0s 2ms/step - Loss: 275226.7812
    - mean_absolute_error: 409.7153 - val_loss: 169654.5469 -
        val_mean_absolute_error: 382.3700
762 Epoch 381/598
763 30/30 [=====] - 0s 2ms/step - Loss: 265609.4062
    - mean_absolute_error: 395.8842 - val_loss: 167261.5312 -
        val_mean_absolute_error: 379.9293
764 Epoch 382/598
765 30/30 [=====] - 0s 2ms/step - Loss: 273304.6875
    - mean_absolute_error: 404.4791 - val_loss: 163985.6875 -
        val_mean_absolute_error: 376.6683
766 Epoch 383/598
767 30/30 [=====] - 0s 2ms/step - Loss: 271349.9375
    - mean_absolute_error: 400.5223 - val_loss: 167457.8750 -
        val_mean_absolute_error: 380.3630
768 Epoch 384/598
769 30/30 [=====] - 0s 2ms/step - Loss: 275478.9062
    - mean_absolute_error: 407.4607 - val_loss: 169025.2344 -
        val_mean_absolute_error: 381.7814
770 Epoch 385/598
771 30/30 [=====] - 0s 2ms/step - Loss: 273147.3438
```

```
771 - mean_absolute_error: 404.4915 - val_loss: 167936.1094 -
    val_mean_absolute_error: 381.0373
772 Epoch 386/598
773 30/30 [=====] - 0s 2ms/step - Loss: 269285.2500
    - mean_absolute_error: 398.1056 - val_loss: 168999.2969 -
    val_mean_absolute_error: 382.3310
774 Epoch 387/598
775 30/30 [=====] - 0s 2ms/step - Loss: 269860.2812
    - mean_absolute_error: 400.4733 - val_loss: 163730.0000 -
    val_mean_absolute_error: 377.2935
776 Epoch 388/598
777 30/30 [=====] - 0s 2ms/step - Loss: 272363.6562
    - mean_absolute_error: 400.0960 - val_loss: 166878.6094 -
    val_mean_absolute_error: 380.6320
778 Epoch 389/598
779 30/30 [=====] - 0s 2ms/step - Loss: 270797.7500
    - mean_absolute_error: 403.7049 - val_loss: 170755.7656 -
    val_mean_absolute_error: 384.4715
780 Epoch 390/598
781 30/30 [=====] - 0s 2ms/step - Loss: 269836.7500
    - mean_absolute_error: 401.7536 - val_loss: 168868.8594 -
    val_mean_absolute_error: 382.7262
782 Epoch 391/598
```

```
783 30/30 [=====] - 0s 2ms/step - loss: 280921.9375
  - mean_absolute_error: 412.4104 - val_loss: 172014.0156 -
    val_mean_absolute_error: 385.9079

784 Epoch 392/598
785 30/30 [=====] - 0s 2ms/step - loss: 275658.7812
  - mean_absolute_error: 407.2302 - val_loss: 165641.0312 -
    val_mean_absolute_error: 379.2556

786 Epoch 393/598
787 30/30 [=====] - 0s 2ms/step - loss: 277927.5312
  - mean_absolute_error: 410.4590 - val_loss: 168783.1094 -
    val_mean_absolute_error: 382.1115

788 Epoch 394/598
789 30/30 [=====] - 0s 2ms/step - loss: 261965.9531
  - mean_absolute_error: 410.4590 - val_loss: 162385.3906 -
    val_mean_absolute_error: 375.2586

790 Epoch 395/598
791 30/30 [=====] - 0s 2ms/step - loss: 270926.7500
  - mean_absolute_error: 404.9106 - val_loss: 170278.8594 -
    val_mean_absolute_error: 383.8922

792 Epoch 396/598
793 30/30 [=====] - 0s 2ms/step - loss: 272255.7812
  - mean_absolute_error: 403.6349 - val_loss: 163367.4844 -
    val_mean_absolute_error: 376.9852
```

```
794 Epoch 397/598
795 30/30 [=====] - 0s 2ms/step - loss: 267445.2812
    - mean_absolute_error: 402.2137 - val_loss: 164405.3125 -
    val_mean_absolute_error: 378.5000
796 Epoch 398/598
797 30/30 [=====] - 0s 2ms/step - loss: 274144.2812
    - mean_absolute_error: 408.0909 - val_loss: 169185.5000 -
    val_mean_absolute_error: 383.5587
798 Epoch 399/598
799 30/30 [=====] - 0s 2ms/step - loss: 269494.7188
    - mean_absolute_error: 402.6866 - val_loss: 169232.9844 -
    val_mean_absolute_error: 383.7865
800 Epoch 400/598
801 30/30 [=====] - 0s 2ms/step - loss: 273203.2812
    - mean_absolute_error: 403.5685 - val_loss: 175021.4062 -
    val_mean_absolute_error: 389.5475
802 Epoch 401/598
803 30/30 [=====] - 0s 2ms/step - loss: 277178.1875
    - mean_absolute_error: 408.9678 - val_loss: 174559.2969 -
    val_mean_absolute_error: 389.1165
804 Epoch 402/598
805 30/30 [=====] - 0s 2ms/step - loss: 274991.2812
    - mean_absolute_error: 408.0887 - val_loss: 174475.0156 -
```

```
805 val_mean_absolute_error: 388.6106
806 Epoch 403/598
807 30/30 [=====] - 0s 2ms/step - loss: 274157.4688
- mean_absolute_error: 407.8874 - val_loss: 173422.4844 -
val_mean_absolute_error: 386.8957
808 Epoch 404/598
809 30/30 [=====] - 0s 2ms/step - loss: 274691.5625
- mean_absolute_error: 408.0331 - val_loss: 165905.0781 -
val_mean_absolute_error: 379.0421
810 Epoch 405/598
811 30/30 [=====] - 0s 2ms/step - loss: 275899.8750
- mean_absolute_error: 408.9332 - val_loss: 166800.2969 -
val_mean_absolute_error: 379.5804
812 Epoch 406/598
813 30/30 [=====] - 0s 2ms/step - loss: 272085.0938
- mean_absolute_error: 402.1920 - val_loss: 167737.8438 -
val_mean_absolute_error: 380.5039
814 Epoch 407/598
815 30/30 [=====] - 0s 2ms/step - loss: 270188.1562
- mean_absolute_error: 401.5570 - val_loss: 162103.7969 -
val_mean_absolute_error: 374.4686
816 Epoch 408/598
817 30/30 [=====] - 0s 2ms/step - loss: 275279.8750
```

```
817  - mean_absolute_error: 405.5291 - val_loss: 162756.0000 -
    val_mean_absolute_error: 375.4642
818 Epoch 409/598
819 30/30 [=====] - 0s 2ms/step - Loss: 273528.3125
    - mean_absolute_error: 403.7737 - val_loss: 167674.9062 -
    val_mean_absolute_error: 380.4484
820 Epoch 410/598
821 30/30 [=====] - 0s 2ms/step - Loss: 267987.7812
    - mean_absolute_error: 397.4813 - val_loss: 165545.4531 -
    val_mean_absolute_error: 378.9601
822 Epoch 411/598
823 30/30 [=====] - 0s 2ms/step - Loss: 273170.1875
    - mean_absolute_error: 401.9741 - val_loss: 163440.6250 -
    val_mean_absolute_error: 376.8639
824 Epoch 412/598
825 30/30 [=====] - 0s 2ms/step - Loss: 277275.8438
    - mean_absolute_error: 408.7365 - val_loss: 170671.5156 -
    val_mean_absolute_error: 385.0257
826 Epoch 413/598
827 30/30 [=====] - 0s 2ms/step - Loss: 272748.6562
    - mean_absolute_error: 403.1926 - val_loss: 166266.7344 -
    val_mean_absolute_error: 379.5518
828 Epoch 414/598
```

```
829 30/30 [=====] - 0s 2ms/step - loss: 268955.6250
  - mean_absolute_error: 396.2253 - val_loss: 175767.5625 -
  val_mean_absolute_error: 389.9213

830 Epoch 415/598
831 30/30 [=====] - 0s 2ms/step - loss: 271849.8438
  - mean_absolute_error: 405.6487 - val_loss: 172749.0938 -
  val_mean_absolute_error: 387.1977

832 Epoch 416/598
833 30/30 [=====] - 0s 2ms/step - loss: 271927.7500
  - mean_absolute_error: 401.8041 - val_loss: 174484.7500 -
  val_mean_absolute_error: 388.7766

834 Epoch 417/598
835 30/30 [=====] - 0s 2ms/step - loss: 270834.0000
  - mean_absolute_error: 402.9709 - val_loss: 168433.0781 -
  val_mean_absolute_error: 382.2169

836 Epoch 418/598
837 30/30 [=====] - 0s 2ms/step - loss: 263944.0312
  - mean_absolute_error: 394.2644 - val_loss: 163883.1406 -
  val_mean_absolute_error: 377.7534

838 Epoch 419/598
839 30/30 [=====] - 0s 2ms/step - loss: 263743.7188
  - mean_absolute_error: 397.5023 - val_loss: 168229.3906 -
  val_mean_absolute_error: 382.8224
```

840	Epoch 420/598	
841	30/30	[=====] - 0s 2ms/step - loss: 277950.1562 - mean_absolute_error: 409.2793 - val_loss: 165787.1562 - val_mean_absolute_error: 379.9780
842	Epoch 421/598	
843	30/30	[=====] - 0s 2ms/step - loss: 273836.1875 - mean_absolute_error: 404.6786 - val_loss: 169455.5000 - val_mean_absolute_error: 382.6982
844	Epoch 422/598	
845	30/30	[=====] - 0s 2ms/step - loss: 271726.2812 - mean_absolute_error: 404.2737 - val_loss: 163693.6406 - val_mean_absolute_error: 377.3946
846	Epoch 423/598	
847	30/30	[=====] - 0s 2ms/step - loss: 274369.1562 - mean_absolute_error: 406.7950 - val_loss: 170120.1406 - val_mean_absolute_error: 384.4268
848	Epoch 424/598	
849	30/30	[=====] - 0s 2ms/step - loss: 265239.3125 - mean_absolute_error: 396.0993 - val_loss: 173926.7656 - val_mean_absolute_error: 388.7318
850	Epoch 425/598	
851	30/30	[=====] - 0s 2ms/step - loss: 268120.1875 - mean_absolute_error: 399.4237 - val_loss: 176172.8906 -

```
851 val_mean_absolute_error: 391.2155
852 Epoch 426/598
853 30/30 [=====] - 0s 2ms/step - Loss: 274218.0938
- mean_absolute_error: 406.7332 - val_loss: 170450.2500 -
val_mean_absolute_error: 384.8573
854 Epoch 427/598
855 30/30 [=====] - 0s 2ms/step - Loss: 275059.3750
- mean_absolute_error: 405.4857 - val_loss: 167310.0000 -
val_mean_absolute_error: 381.6457
856 Epoch 428/598
857 30/30 [=====] - 0s 2ms/step - Loss: 268750.7812
- mean_absolute_error: 401.4590 - val_loss: 168339.6719 -
val_mean_absolute_error: 383.1195
858 Epoch 429/598
859 30/30 [=====] - 0s 2ms/step - Loss: 274301.5312
- mean_absolute_error: 407.7536 - val_loss: 169059.1719 -
val_mean_absolute_error: 383.3517
860 Epoch 430/598
861 30/30 [=====] - 0s 2ms/step - Loss: 271248.8750
- mean_absolute_error: 402.1554 - val_loss: 171946.0625 -
val_mean_absolute_error: 386.3314
862 Epoch 431/598
863 30/30 [=====] - 0s 2ms/step - Loss: 272905.4375
```

```
863 - mean_absolute_error: 401.2777 - val_loss: 167569.3438 -
    val_mean_absolute_error: 382.0430
864 Epoch 432/598
865 30/30 [=====] - 0s 2ms/step - Loss: 274571.8750
    - mean_absolute_error: 408.2715 - val_loss: 166786.6250 -
    val_mean_absolute_error: 380.4319
866 Epoch 433/598
867 30/30 [=====] - 0s 2ms/step - Loss: 272853.8125
    - mean_absolute_error: 406.9479 - val_loss: 174508.8438 -
    val_mean_absolute_error: 388.6086
868 Epoch 434/598
869 30/30 [=====] - 0s 2ms/step - Loss: 272970.1562
    - mean_absolute_error: 408.2068 - val_loss: 161176.8438 -
    val_mean_absolute_error: 374.0483
870 Epoch 435/598
871 30/30 [=====] - 0s 2ms/step - Loss: 272982.5000
    - mean_absolute_error: 402.2445 - val_loss: 162954.5625 -
    val_mean_absolute_error: 376.2176
872 Epoch 436/598
873 30/30 [=====] - 0s 2ms/step - Loss: 270282.0938
    - mean_absolute_error: 401.8590 - val_loss: 169650.8906 -
    val_mean_absolute_error: 383.2547
874 Epoch 437/598
```

```
875 30/30 [=====] - 0s 2ms/step - loss: 272313.2500
  - mean_absolute_error: 405.6140 - val_loss: 164125.1094 -
    val_mean_absolute_error: 377.2498
876 Epoch 438/598
877 30/30 [=====] - 0s 2ms/step - loss: 274756.9062
  - mean_absolute_error: 406.1261 - val_loss: 165122.1250 -
    val_mean_absolute_error: 377.9875
878 Epoch 439/598
879 30/30 [=====] - 0s 2ms/step - loss: 276392.1875
  - mean_absolute_error: 404.9555 - val_loss: 174563.6875 -
    val_mean_absolute_error: 388.5553
880 Epoch 440/598
881 30/30 [=====] - 0s 2ms/step - loss: 278580.7188
  - mean_absolute_error: 412.0224 - val_loss: 168824.2031 -
    val_mean_absolute_error: 382.0613
882 Epoch 441/598
883 30/30 [=====] - 0s 2ms/step - loss: 276340.9062
  - mean_absolute_error: 405.2662 - val_loss: 166020.5156 -
    val_mean_absolute_error: 378.3943
884 Epoch 442/598
885 30/30 [=====] - 0s 2ms/step - loss: 270118.1562
  - mean_absolute_error: 400.2281 - val_loss: 158429.8281 -
    val_mean_absolute_error: 369.8975
```

```
886 Epoch 443/598
887 30/30 [=====] - 0s 2ms/step - loss: 265275.8750
- mean_absolute_error: 394.8255 - val_loss: 175147.0312 -
val_mean_absolute_error: 388.4095
888 Epoch 444/598
889 30/30 [=====] - 0s 2ms/step - loss: 268945.0312
- mean_absolute_error: 401.7811 - val_loss: 174665.1250 -
val_mean_absolute_error: 389.0116
890 Epoch 445/598
891 30/30 [=====] - 0s 2ms/step - loss: 273907.7188
- mean_absolute_error: 403.9419 - val_loss: 163548.1719 -
val_mean_absolute_error: 377.0897
892 Epoch 446/598
893 30/30 [=====] - 0s 2ms/step - loss: 276680.7500
- mean_absolute_error: 412.0709 - val_loss: 157430.2500 -
val_mean_absolute_error: 369.9706
894 Epoch 447/598
895 30/30 [=====] - 0s 2ms/step - loss: 268812.1875
- mean_absolute_error: 399.6343 - val_loss: 168459.8438 -
val_mean_absolute_error: 382.9549
896 Epoch 448/598
897 30/30 [=====] - 0s 2ms/step - loss: 273343.3438
- mean_absolute_error: 405.1879 - val_loss: 161312.0625 -
```

```
897 val_mean_absolute_error: 374.9756
898 Epoch 449/598
899 30/30 [=====] - 0s 2ms/step - loss: 270917.5938
- mean_absolute_error: 400.2827 - val_loss: 160279.4219 -
val_mean_absolute_error: 373.5236
900 Epoch 450/598
901 30/30 [=====] - 0s 2ms/step - loss: 275023.5625
- mean_absolute_error: 403.2294 - val_loss: 165352.6875 -
val_mean_absolute_error: 379.3769
902 Epoch 451/598
903 30/30 [=====] - 0s 2ms/step - loss: 271429.4062
- mean_absolute_error: 404.2960 - val_loss: 176266.6719 -
val_mean_absolute_error: 391.0927
904 Epoch 452/598
905 30/30 [=====] - 0s 2ms/step - loss: 271720.2188
- mean_absolute_error: 403.5546 - val_loss: 173139.8438 -
val_mean_absolute_error: 387.6463
906 Epoch 453/598
907 30/30 [=====] - 0s 2ms/step - loss: 273928.6250
- mean_absolute_error: 407.3499 - val_loss: 175291.8438 -
val_mean_absolute_error: 389.7659
908 Epoch 454/598
909 30/30 [=====] - 0s 2ms/step - loss: 275423.8750
```

```
909 - mean_absolute_error: 409.8516 - val_loss: 162333.9844 -
val_mean_absolute_error: 375.2858
910 Epoch 455/598
911 30/30 [=====] - 0s 2ms/step - Loss: 271573.9688
- mean_absolute_error: 399.4568 - val_loss: 168374.1406 -
val_mean_absolute_error: 381.5255
912 Epoch 456/598
913 30/30 [=====] - 0s 2ms/step - Loss: 269951.9062
- mean_absolute_error: 403.1551 - val_loss: 157169.2031 -
val_mean_absolute_error: 369.9282
914 Epoch 457/598
915 30/30 [=====] - 0s 2ms/step - Loss: 272606.0625
- mean_absolute_error: 403.3122 - val_loss: 167418.0625 -
val_mean_absolute_error: 381.4810
916 Epoch 458/598
917 30/30 [=====] - 0s 2ms/step - Loss: 272400.1250
- mean_absolute_error: 401.2619 - val_loss: 179035.4062 -
val_mean_absolute_error: 394.2212
918 Epoch 459/598
919 30/30 [=====] - 0s 2ms/step - Loss: 269531.8438
- mean_absolute_error: 400.1946 - val_loss: 173112.0312 -
val_mean_absolute_error: 387.6072
920 Epoch 460/598
```

```
921 30/30 [=====] - 0s 2ms/step - loss: 273725.5938
  - mean_absolute_error: 407.4433 - val_loss: 165697.3125 -
    val_mean_absolute_error: 379.7997

922 Epoch 461/598
923 30/30 [=====] - 0s 2ms/step - loss: 271023.3125
  - mean_absolute_error: 401.4966 - val_loss: 159736.4375 -
    val_mean_absolute_error: 374.5730

924 Epoch 462/598
925 30/30 [=====] - 0s 2ms/step - loss: 274866.4375
  - mean_absolute_error: 405.9344 - val_loss: 168073.5938 -
    val_mean_absolute_error: 382.5695

926 Epoch 463/598
927 30/30 [=====] - 0s 2ms/step - loss: 276514.5938
  - mean_absolute_error: 409.7670 - val_loss: 164802.0156 -
    val_mean_absolute_error: 378.5628

928 Epoch 464/598
929 30/30 [=====] - 0s 2ms/step - loss: 270361.5938
  - mean_absolute_error: 402.6096 - val_loss: 160055.8594 -
    val_mean_absolute_error: 372.4930

930 Epoch 465/598
931 30/30 [=====] - 0s 2ms/step - loss: 278610.9688
  - mean_absolute_error: 409.4345 - val_loss: 168255.2812 -
    val_mean_absolute_error: 381.7827
```

```
932 Epoch 466/598
933 30/30 [=====] - 0s 2ms/step - loss: 272839.8125
    - mean_absolute_error: 402.9626 - val_loss: 165590.3438 -
    val_mean_absolute_error: 379.4417
934 Epoch 467/598
935 30/30 [=====] - 0s 2ms/step - loss: 273486.3750
    - mean_absolute_error: 402.7525 - val_loss: 171252.7500 -
    val_mean_absolute_error: 385.0758
936 Epoch 468/598
937 30/30 [=====] - 0s 2ms/step - loss: 273789.7188
    - mean_absolute_error: 403.2753 - val_loss: 168446.5781 -
    val_mean_absolute_error: 382.1492
938 Epoch 469/598
939 30/30 [=====] - 0s 2ms/step - loss: 264644.0938
    - mean_absolute_error: 395.7172 - val_loss: 167394.5156 -
    val_mean_absolute_error: 381.7142
940 Epoch 470/598
941 30/30 [=====] - 0s 2ms/step - loss: 271572.3438
    - mean_absolute_error: 401.5117 - val_loss: 168886.8281 -
    val_mean_absolute_error: 382.5979
942 Epoch 471/598
943 30/30 [=====] - 0s 2ms/step - loss: 275478.0000
    - mean_absolute_error: 411.4850 - val_loss: 166790.5469 -
```

```
943 val_mean_absolute_error: 379.5912
944 Epoch 472/598
945 30/30 [=====] - 0s 2ms/step - Loss: 267494.0312
    - mean_absolute_error: 397.9419 - val_loss: 162183.2969 -
        val_mean_absolute_error: 375.3483
946 Epoch 473/598
947 30/30 [=====] - 0s 2ms/step - Loss: 269271.8750
    - mean_absolute_error: 400.3742 - val_loss: 167451.9219 -
        val_mean_absolute_error: 381.5478
948 Epoch 474/598
949 30/30 [=====] - 0s 2ms/step - Loss: 271360.2188
    - mean_absolute_error: 397.5179 - val_loss: 173915.6562 -
        val_mean_absolute_error: 381.5478
950 Epoch 475/598
951 30/30 [=====] - 0s 2ms/step - Loss: 272055.6875
    - mean_absolute_error: 403.6983 - val_loss: 178556.3906 -
        val_mean_absolute_error: 394.3668
952 Epoch 476/598
953 30/30 [=====] - 0s 2ms/step - Loss: 271450.6875
    - mean_absolute_error: 403.8252 - val_loss: 174486.9375 -
        val_mean_absolute_error: 390.0788
954 Epoch 477/598
955 30/30 [=====] - 0s 2ms/step - Loss: 274521.7812
```

```
955  - mean_absolute_error: 410.2759 - val_loss: 173447.8281 -
  val_mean_absolute_error: 388.4579
956 Epoch 478/598
957 30/30 [=====] - 0s 2ms/step - Loss: 274998.0000
  - mean_absolute_error: 407.9853 - val_loss: 164319.7969 -
  val_mean_absolute_error: 376.9779
958 Epoch 479/598
959 30/30 [=====] - 0s 2ms/step - Loss: 272114.0625
  - mean_absolute_error: 399.9801 - val_loss: 160095.2344 -
  val_mean_absolute_error: 372.4734
960 Epoch 480/598
961 30/30 [=====] - 0s 2ms/step - Loss: 273059.5625
  - mean_absolute_error: 403.3478 - val_loss: 169237.5000 -
  val_mean_absolute_error: 382.4296
962 Epoch 481/598
963 30/30 [=====] - 0s 2ms/step - Loss: 270852.0312
  - mean_absolute_error: 399.6393 - val_loss: 166368.7812 -
  val_mean_absolute_error: 380.1216
964 Epoch 482/598
965 30/30 [=====] - 0s 2ms/step - Loss: 265263.3125
  - mean_absolute_error: 395.3661 - val_loss: 169664.8906 -
  val_mean_absolute_error: 383.9840
966 Epoch 483/598
```

```
967 30/30 [=====] - 0s 2ms/step - loss: 275621.1562
  - mean_absolute_error: 406.5299 - val_loss: 169618.3750 -
val_mean_absolute_error: 384.6494

968 Epoch 484/598
969 30/30 [=====] - 0s 2ms/step - loss: 276016.4062
  - mean_absolute_error: 404.4622 - val_loss: 158788.0625 -
val_mean_absolute_error: 371.7686

970 Epoch 485/598
971 30/30 [=====] - 0s 2ms/step - loss: 267233.5312
  - mean_absolute_error: 398.0505 - val_loss: 164428.2188 -
val_mean_absolute_error: 377.4983

972 Epoch 486/598
973 30/30 [=====] - 0s 2ms/step - loss: 274106.5000
  - mean_absolute_error: 400.7975 - val_loss: 163653.6719 -
val_mean_absolute_error: 376.5786

974 Epoch 487/598
975 30/30 [=====] - 0s 2ms/step - loss: 272622.8438
  - mean_absolute_error: 403.7742 - val_loss: 165484.1719 -
val_mean_absolute_error: 378.3543

976 Epoch 488/598
977 30/30 [=====] - 0s 2ms/step - loss: 272132.6875
  - mean_absolute_error: 398.5381 - val_loss: 172525.6406 -
val_mean_absolute_error: 386.7918
```

```
978 Epoch 489/598
979 30/30 [=====] - 0s 2ms/step - loss: 269528.
1562 - mean_absolute_error: 402.1133 - val_loss: 165721.6094 -
val_mean_absolute_error: 379.8437
980 Epoch 490/598
981 30/30 [=====] - 0s 2ms/step - loss: 279117.
1562 - mean_absolute_error: 410.2298 - val_loss: 161600.1094 -
val_mean_absolute_error: 374.3703
982 Epoch 491/598
983 30/30 [=====] - 0s 2ms/step - loss: 264646.
2812 - mean_absolute_error: 392.3521 - val_loss: 164725.8438 -
val_mean_absolute_error: 379.5600
984 Epoch 492/598
985 30/30 [=====] - 0s 2ms/step - loss: 275659.
4375 - mean_absolute_error: 409.4291 - val_loss: 159695.4219 -
val_mean_absolute_error: 372.3374
986 Epoch 493/598
987 30/30 [=====] - 0s 2ms/step - loss: 270437.
7500 - mean_absolute_error: 398.4242 - val_loss: 170348.9844 -
val_mean_absolute_error: 384.4033
988 Epoch 494/598
989 30/30 [=====] - 0s 2ms/step - loss: 269294.
0312 - mean_absolute_error: 401.3370 - val_loss: 163925.4219 -
```

```
989 val_mean_absolute_error: 377.0600
990 Epoch 495/598
991 30/30 [=====] - 0s 2ms/step - loss: 275075.
8125 - mean_absolute_error: 406.9749 - val_loss: 170530.3750 -
val_mean_absolute_error: 384.6630
992 Epoch 496/598
993 30/30 [=====] - 0s 2ms/step - loss: 268679.
3438 - mean_absolute_error: 400.6402 - val_loss: 158105.9844 -
val_mean_absolute_error: 370.1818
994 Epoch 497/598
995 30/30 [=====] - 0s 2ms/step - loss: 272737.
1875 - mean_absolute_error: 401.9501 - val_loss: 162904.6094 -
val_mean_absolute_error: 375.8253
996 Epoch 498/598
997 30/30 [=====] - 0s 2ms/step - loss: 269754.
8750 - mean_absolute_error: 400.5671 - val_loss: 164669.7812 -
val_mean_absolute_error: 377.4602
998 Epoch 499/598
999 30/30 [=====] - 0s 2ms/step - loss: 269875.
2500 - mean_absolute_error: 400.4113 - val_loss: 161036.5469 -
val_mean_absolute_error: 374.3412
1000 Epoch 500/598
1001 30/30 [=====] - 0s 2ms/step - loss: 267390.
```

1001	9375	-	mean_absolute_error:	396.5563	-	val_loss:	166577.6719	-
1002	Epoch	501/598						
1003	30/30	[=====]	-	0s 2ms/step -	loss:	274202.		
5312	-	mean_absolute_error:	406.8012	-	val_loss:	161727.7188	-	
		val_mean_absolute_error:	374.4676					
1004	Epoch	502/598						
1005	30/30	[=====]	-	0s 2ms/step -	loss:	263143.		
5938	-	mean_absolute_error:	392.1093	-	val_loss:	162676.5625	-	
		val_mean_absolute_error:	375.9332					
1006	Epoch	503/598						
1007	30/30	[=====]	-	0s 2ms/step -	loss:	266626.		
1562	-	mean_absolute_error:	393.4127	-	val_loss:	162349.6406	-	
		val_mean_absolute_error:	377.0954					
1008	Epoch	504/598						
1009	30/30	[=====]	-	0s 2ms/step -	loss:	272071.		
9062	-	mean_absolute_error:	404.1747	-	val_loss:	166985.5781	-	
		val_mean_absolute_error:	380.9586					
1010	Epoch	505/598						
1011	30/30	[=====]	-	0s 2ms/step -	loss:	281256.		
8438	-	mean_absolute_error:	411.7701	-	val_loss:	157427.2031	-	
		val_mean_absolute_error:	369.9417					
1012	Epoch	506/598						

```
1013 30/30 [=====] - 0s 2ms/step - loss: 279472.  
1250 - mean_absolute_error: 408.7100 - val_loss: 160642.1875 -  
val_mean_absolute_error: 373.4772  
1014 Epoch 507/598  
1015 30/30 [=====] - 0s 2ms/step - loss: 273035.  
4375 - mean_absolute_error: 403.0144 - val_loss: 167725.7969 -  
val_mean_absolute_error: 381.5321  
1016 Epoch 508/598  
1017 30/30 [=====] - 0s 2ms/step - loss: 275388.  
0312 - mean_absolute_error: 405.9251 - val_loss: 162287.7969 -  
val_mean_absolute_error: 375.3790  
1018 Epoch 509/598  
1019 30/30 [=====] - 0s 2ms/step - loss: 272399.  
0312 - mean_absolute_error: 403.7977 - val_loss: 168421.0469 -  
val_mean_absolute_error: 381.7110  
1020 Epoch 510/598  
1021 30/30 [=====] - 0s 2ms/step - loss: 269224.  
2500 - mean_absolute_error: 399.7788 - val_loss: 169865.8125 -  
val_mean_absolute_error: 384.4794  
1022 Epoch 511/598  
1023 30/30 [=====] - 0s 2ms/step - loss: 277755.  
4375 - mean_absolute_error: 409.4171 - val_loss: 172506.6719 -  
val_mean_absolute_error: 386.7836
```

1024	Epoch	512/598
1025	30/30	[=====] - 0s 2ms/step - loss: 270553.
8438	- mean_absolute_error:	403.3800 - val_loss: 168915.2656 - val_mean_absolute_error: 382.4919
1026	Epoch	513/598
1027	30/30	[=====] - 0s 2ms/step - loss: 267421.
2188	- mean_absolute_error:	399.2600 - val_loss: 167357.5938 - val_mean_absolute_error: 380.7803
1028	Epoch	514/598
1029	30/30	[=====] - 0s 2ms/step - loss: 279757.
4375	- mean_absolute_error:	412.4214 - val_loss: 163854.5781 - val_mean_absolute_error: 376.5727
1030	Epoch	515/598
1031	30/30	[=====] - 0s 2ms/step - loss: 269908.
8438	- mean_absolute_error:	400.8412 - val_loss: 161468.0000 - val_mean_absolute_error: 373.8115
1032	Epoch	516/598
1033	30/30	[=====] - 0s 2ms/step - loss: 271800.
3125	- mean_absolute_error:	400.1594 - val_loss: 160724.7969 - val_mean_absolute_error: 373.5291
1034	Epoch	517/598
1035	30/30	[=====] - 0s 2ms/step - loss: 273581.
4062	- mean_absolute_error:	407.6220 - val_loss: 169832.9844 -

```
1035 val_mean_absolute_error: 383.2594
1036 Epoch 518/598
1037 30/30 [=====] - 0s 2ms/step - loss: 283197.
    2500 - mean_absolute_error: 416.5779 - val_loss: 166752.1719 -
    val_mean_absolute_error: 379.3936
1038 Epoch 519/598
1039 30/30 [=====] - 0s 2ms/step - loss: 273422.
    7812 - mean_absolute_error: 407.6391 - val_loss: 161514.6875 -
    val_mean_absolute_error: 374.4017
1040 Epoch 520/598
1041 30/30 [=====] - 0s 2ms/step - loss: 277049.
    3125 - mean_absolute_error: 407.2213 - val_loss: 154889.6250 -
    val_mean_absolute_error: 366.9215
1042 Epoch 521/598
1043 30/30 [=====] - 0s 2ms/step - loss: 277672.
    5938 - mean_absolute_error: 410.9069 - val_loss: 166890.5781 -
    val_mean_absolute_error: 380.0532
1044 Epoch 522/598
1045 30/30 [=====] - 0s 2ms/step - loss: 272767.
    0625 - mean_absolute_error: 404.3107 - val_loss: 170647.0625 -
    val_mean_absolute_error: 383.2679
1046 Epoch 523/598
1047 30/30 [=====] - 0s 2ms/step - loss: 271312.
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1047 9062 - mean_absolute_error: 402.1973 - val_loss: 170934.1875 -
val_mean_absolute_error: 384.3684
1048 Epoch 524/598
1049 30/30 [=====] - 0s 2ms/step - loss: 268597.
3125 - mean_absolute_error: 396.7403 - val_loss: 165732.5469 -
val_mean_absolute_error: 378.7119
1050 Epoch 525/598
1051 30/30 [=====] - 0s 2ms/step - loss: 272012.
5312 - mean_absolute_error: 402.0168 - val_loss: 165104.4375 -
val_mean_absolute_error: 377.8788
1052 Epoch 526/598
1053 30/30 [=====] - 0s 2ms/step - loss: 273807.
1250 - mean_absolute_error: 404.4963 - val_loss: 167986.1562 -
val_mean_absolute_error: 382.0540
1054 Epoch 527/598
1055 30/30 [=====] - 0s 2ms/step - loss: 269505.
8125 - mean_absolute_error: 402.7874 - val_loss: 162233.0938 -
val_mean_absolute_error: 375.0748
1056 Epoch 528/598
1057 30/30 [=====] - 0s 2ms/step - loss: 272957.
6875 - mean_absolute_error: 405.1350 - val_loss: 161800.6562 -
val_mean_absolute_error: 375.6671
1058 Epoch 529/598
```

```
1059 30/30 [=====] - 0s 2ms/step - loss: 269690.  
0938 - mean_absolute_error: 401.5948 - val_loss: 171540.2812 -  
val_mean_absolute_error: 385.7821  
1060 Epoch 530/598  
1061 30/30 [=====] - 0s 2ms/step - loss: 267763.  
1875 - mean_absolute_error: 397.7767 - val_loss: 157991.9531 -  
val_mean_absolute_error: 370.9529  
1062 Epoch 531/598  
1063 30/30 [=====] - 0s 2ms/step - loss: 274646.  
1562 - mean_absolute_error: 404.8058 - val_loss: 164376.2188 -  
val_mean_absolute_error: 378.5659  
1064 Epoch 532/598  
1065 30/30 [=====] - 0s 2ms/step - loss: 275536.  
7812 - mean_absolute_error: 406.8852 - val_loss: 170321.6719 -  
val_mean_absolute_error: 383.7607  
1066 Epoch 533/598  
1067 30/30 [=====] - 0s 2ms/step - loss: 278377.  
3438 - mean_absolute_error: 409.9331 - val_loss: 165105.2656 -  
val_mean_absolute_error: 378.0066  
1068 Epoch 534/598  
1069 30/30 [=====] - 0s 2ms/step - loss: 268177.  
0625 - mean_absolute_error: 401.2513 - val_loss: 157712.2344 -  
val_mean_absolute_error: 370.1686
```

1070	Epoch	535/598
1071	30/30	[=====] - 0s 2ms/step - loss: 273638.
1072	- mean_absolute_error:	406.8921 - val_loss: 160247.0781 -
1073	mean_absolute_error:	373.2171
1072	Epoch	536/598
1073	30/30	[=====] - 0s 2ms/step - loss: 267319.
1074	- mean_absolute_error:	396.5488 - val_loss: 171247.2188 -
1074	Epoch	537/598
1075	30/30	[=====] - 0s 2ms/step - loss: 270609.
1075	- mean_absolute_error:	407.2113 - val_loss: 159434.6562 -
1076	mean_absolute_error:	372.5370
1076	Epoch	538/598
1077	30/30	[=====] - 0s 2ms/step - loss: 266481.
1077	- mean_absolute_error:	396.9737 - val_loss: 166542.1094 -
1078	mean_absolute_error:	381.0417
1078	Epoch	539/598
1079	30/30	[=====] - 0s 2ms/step - loss: 280421.
1079	- mean_absolute_error:	414.7289 - val_loss: 164940.9375 -
1080	mean_absolute_error:	378.2204
1080	Epoch	540/598
1081	30/30	[=====] - 0s 2ms/step - loss: 265837.
1081	- mean_absolute_error:	395.9741 - val_loss: 166559.7188 -

```
1081 val_mean_absolute_error: 380.2437
1082 Epoch 541/598
1083 30/30 [=====] - 0s 2ms/step - loss: 275663.
    4062 - mean_absolute_error: 405.2089 - val_loss: 166176.9688 -
    val_mean_absolute_error: 379.6162
1084 Epoch 542/598
1085 30/30 [=====] - 0s 2ms/step - loss: 277352.
    2188 - mean_absolute_error: 409.0943 - val_loss: 166951.4375 -
    val_mean_absolute_error: 379.8788
1086 Epoch 543/598
1087 30/30 [=====] - 0s 2ms/step - loss: 272448.
    3125 - mean_absolute_error: 400.5479 - val_loss: 162995.4375 -
    val_mean_absolute_error: 376.1034
1088 Epoch 544/598
1089 30/30 [=====] - 0s 2ms/step - loss: 271217.
    3438 - mean_absolute_error: 401.2756 - val_loss: 166079.7500 -
    val_mean_absolute_error: 379.1480
1090 Epoch 545/598
1091 30/30 [=====] - 0s 2ms/step - loss: 268939.
    1875 - mean_absolute_error: 400.6886 - val_loss: 167263.9375 -
    val_mean_absolute_error: 381.3100
1092 Epoch 546/598
1093 30/30 [=====] - 0s 2ms/step - loss: 271288.
```

1093	1562	- mean_absolute_error: 400.9894	- val_loss: 170442.4219	-
1094	Epoch 547/598			
1095	30/30	[=====] - 0s 2ms/step - loss: 276314.		
9688	- mean_absolute_error: 406.9322	- val_loss: 164616.0625	-	
val_mean_absolute_error:	378.2291			
1096	Epoch 548/598			
1097	30/30	[=====] - 0s 2ms/step - loss: 270539.		
8125	- mean_absolute_error: 401.1153	- val_loss: 168831.6250	-	
val_mean_absolute_error:	382.5099			
1098	Epoch 549/598			
1099	30/30	[=====] - 0s 2ms/step - loss: 269913.		
6562	- mean_absolute_error: 400.1505	- val_loss: 164957.5000	-	
val_mean_absolute_error:	378.8603			
1100	Epoch 550/598			
1101	30/30	[=====] - 0s 2ms/step - loss: 273471.		
6562	- mean_absolute_error: 402.8091	- val_loss: 170704.7031	-	
val_mean_absolute_error:	384.6659			
1102	Epoch 551/598			
1103	30/30	[=====] - 0s 2ms/step - loss: 274912.		
1250	- mean_absolute_error: 406.6523	- val_loss: 161024.8281	-	
val_mean_absolute_error:	372.9770			
1104	Epoch 552/598			

```
1105 30/30 [=====] - 0s 2ms/step - loss: 270291.  
5312 - mean_absolute_error: 401.2748 - val_loss: 169749.3750 -  
val_mean_absolute_error: 382.3837  
1106 Epoch 553/598  
1107 30/30 [=====] - 0s 2ms/step - loss: 273517.  
9688 - mean_absolute_error: 405.8250 - val_loss: 163937.7969 -  
val_mean_absolute_error: 377.4019  
1108 Epoch 554/598  
1109 30/30 [=====] - 0s 2ms/step - loss: 266107.  
9375 - mean_absolute_error: 393.1588 - val_loss: 168757.2969 -  
val_mean_absolute_error: 383.1436  
1110 Epoch 555/598  
1111 30/30 [=====] - 0s 2ms/step - loss: 272108.  
0000 - mean_absolute_error: 405.6848 - val_loss: 168903.6250 -  
val_mean_absolute_error: 383.6161  
1112 Epoch 556/598  
1113 30/30 [=====] - 0s 2ms/step - loss: 269451.  
7188 - mean_absolute_error: 398.8216 - val_loss: 177821.3281 -  
val_mean_absolute_error: 392.5682  
1114 Epoch 557/598  
1115 30/30 [=====] - 0s 2ms/step - loss: 275642.  
5938 - mean_absolute_error: 403.8788 - val_loss: 167437.0312 -  
val_mean_absolute_error: 381.5674
```

1116	Epoch	558/598
1117	30/30	[=====] - 0s 2ms/step - loss: 266281.
0000	- mean_absolute_error:	393.9014 - val_loss: 178129.4688 -
val_mean_absolute_error:	393.8849	
1118	Epoch	559/598
1119	30/30	[=====] - 0s 2ms/step - loss: 272824.
9375	- mean_absolute_error:	404.8827 - val_loss: 174069.8281 -
val_mean_absolute_error:	388.6703	
1120	Epoch	560/598
1121	30/30	[=====] - 0s 2ms/step - loss: 269353.
5938	- mean_absolute_error:	401.3254 - val_loss: 174049.4844 -
val_mean_absolute_error:	389.8295	
1122	Epoch	561/598
1123	30/30	[=====] - 0s 2ms/step - loss: 278398.
5938	- mean_absolute_error:	412.9397 - val_loss: 164125.7812 -
val_mean_absolute_error:	378.5286	
1124	Epoch	562/598
1125	30/30	[=====] - 0s 2ms/step - loss: 265070.
5000	- mean_absolute_error:	395.2909 - val_loss: 165625.1094 -
val_mean_absolute_error:	380.5320	
1126	Epoch	563/598
1127	30/30	[=====] - 0s 2ms/step - loss: 262335.
1250	- mean_absolute_error:	389.9023 - val_loss: 168236.1250 -

```
1127 val_mean_absolute_error: 384.2111
1128 Epoch 564/598
1129 30/30 [=====] - 0s 2ms/step - loss: 275933.
      3750 - mean_absolute_error: 406.3530 - val_loss: 178086.6250 -
      val_mean_absolute_error: 393.4220
1130 Epoch 565/598
1131 30/30 [=====] - 0s 2ms/step - loss: 272199.
      5938 - mean_absolute_error: 404.6862 - val_loss: 178790.3906 -
      val_mean_absolute_error: 393.9989
1132 Epoch 566/598
1133 30/30 [=====] - 0s 2ms/step - loss: 279454.
      1875 - mean_absolute_error: 414.8349 - val_loss: 162868.7500 -
      val_mean_absolute_error: 376.3529
1134 Epoch 567/598
1135 30/30 [=====] - 0s 2ms/step - loss: 269392.
      6875 - mean_absolute_error: 400.7652 - val_loss: 160435.1094 -
      val_mean_absolute_error: 372.9981
1136 Epoch 568/598
1137 30/30 [=====] - 0s 2ms/step - loss: 275557.
      2812 - mean_absolute_error: 406.0887 - val_loss: 168877.9531 -
      val_mean_absolute_error: 382.5101
1138 Epoch 569/598
1139 30/30 [=====] - 0s 2ms/step - loss: 276619.
```

```
1139 5625 - mean_absolute_error: 407.5294 - val_loss: 165497.2500 -
val_mean_absolute_error: 378.9269
1140 Epoch 570/598
1141 30/30 [=====] - 0s 2ms/step - loss: 281282.
0938 - mean_absolute_error: 418.6128 - val_loss: 153575.5938 -
val_mean_absolute_error: 365.2250
1142 Epoch 571/598
1143 30/30 [=====] - 0s 2ms/step - loss: 266588.
7812 - mean_absolute_error: 396.3407 - val_loss: 159472.0625 -
val_mean_absolute_error: 371.8421
1144 Epoch 572/598
1145 30/30 [=====] - 0s 2ms/step - loss: 267614.
3125 - mean_absolute_error: 398.9142 - val_loss: 173056.7500 -
val_mean_absolute_error: 387.9590
1146 Epoch 573/598
1147 30/30 [=====] - 0s 2ms/step - loss: 272028.
3750 - mean_absolute_error: 403.5038 - val_loss: 162662.4688 -
val_mean_absolute_error: 376.3371
1148 Epoch 574/598
1149 30/30 [=====] - 0s 2ms/step - loss: 268660.
0938 - mean_absolute_error: 398.9684 - val_loss: 166644.3125 -
val_mean_absolute_error: 380.3123
1150 Epoch 575/598
```

```
1151 30/30 [=====] - 0s 2ms/step - loss: 279057.  
5938 - mean_absolute_error: 409.1407 - val_loss: 162100.7500 -  
val_mean_absolute_error: 374.8072  
1152 Epoch 576/598  
1153 30/30 [=====] - 0s 2ms/step - loss: 273506.  
8438 - mean_absolute_error: 403.3508 - val_loss: 1600516.8594 -  
val_mean_absolute_error: 372.4990  
1154 Epoch 577/598  
1155 30/30 [=====] - 0s 2ms/step - loss: 271085.  
2812 - mean_absolute_error: 398.0489 - val_loss: 159373.0938 -  
val_mean_absolute_error: 371.1765  
1156 Epoch 578/598  
1157 30/30 [=====] - 0s 2ms/step - loss: 266718.  
0000 - mean_absolute_error: 399.9101 - val_loss: 168790.9375 -  
val_mean_absolute_error: 381.3409  
1158 Epoch 579/598  
1159 30/30 [=====] - 0s 2ms/step - loss: 268926.  
2812 - mean_absolute_error: 401.8682 - val_loss: 158050.7031 -  
val_mean_absolute_error: 371.0377  
1160 Epoch 580/598  
1161 30/30 [=====] - 0s 2ms/step - loss: 267393.  
2500 - mean_absolute_error: 396.8519 - val_loss: 161164.6094 -  
val_mean_absolute_error: 374.7966
```

1162	Epoch	581/598
1163	30/30	[=====] - 0s 2ms/step - loss: 280219.
5312	- mean_absolute_error:	409.2693 - val_loss: 161760.7969 -
val_mean_absolute_error:	374.8313	
1164	Epoch	582/598
1165	30/30	[=====] - 0s 2ms/step - loss: 267754.
8125	- mean_absolute_error:	393.0096 - val_loss: 167744.2344 -
val_mean_absolute_error:	382.0514	
1166	Epoch	583/598
1167	30/30	[=====] - 0s 2ms/step - loss: 272537.
9375	- mean_absolute_error:	403.4814 - val_loss: 165622.5625 -
val_mean_absolute_error:	380.2610	
1168	Epoch	584/598
1169	30/30	[=====] - 0s 2ms/step - loss: 268844.
1250	- mean_absolute_error:	397.6015 - val_loss: 172234.5469 -
val_mean_absolute_error:	387.9204	
1170	Epoch	585/598
1171	30/30	[=====] - 0s 2ms/step - loss: 275356.
7188	- mean_absolute_error:	410.9685 - val_loss: 174268.7188 -
val_mean_absolute_error:	389.6760	
1172	Epoch	586/598
1173	30/30	[=====] - 0s 2ms/step - loss: 272681.
3125	- mean_absolute_error:	405.1346 - val_loss: 170268.6719 -

```
1173 val_mean_absolute_error: 384.4828
1174 Epoch 587/598
1175 30/30 [=====] - 0s 2ms/step - loss: 273931.
6875 - mean_absolute_error: 404.7325 - val_loss: 165182.0469 -
val_mean_absolute_error: 378.4471
1176 Epoch 588/598
1177 30/30 [=====] - 0s 2ms/step - loss: 267355.
2500 - mean_absolute_error: 396.7990 - val_loss: 163558.8594 -
val_mean_absolute_error: 376.4580
1178 Epoch 589/598
1179 30/30 [=====] - 0s 2ms/step - loss: 268485.
1875 - mean_absolute_error: 399.0582 - val_loss: 160495.7500 -
val_mean_absolute_error: 374.2362
1180 Epoch 590/598
1181 30/30 [=====] - 0s 2ms/step - loss: 274651.
0000 - mean_absolute_error: 405.5451 - val_loss: 165382.2031 -
val_mean_absolute_error: 378.7551
1182 Epoch 591/598
1183 30/30 [=====] - 0s 2ms/step - loss: 273330.
9688 - mean_absolute_error: 403.3241 - val_loss: 165221.2812 -
val_mean_absolute_error: 378.0994
1184 Epoch 592/598
1185 30/30 [=====] - 0s 2ms/step - loss: 273486.
```

```
1185 1875 - mean_absolute_error: 402.8767 - val_loss: 163483.4219 -
    val_mean_absolute_error: 376.3603
1186 Epoch 593/598
1187 30/30 [=====] - 0s 2ms/step - loss: 269370.
9688 - mean_absolute_error: 400.6067 - val_loss: 179557.7656 -
    val_mean_absolute_error: 394.3789
1188 Epoch 594/598
1189 30/30 [=====] - 0s 2ms/step - loss: 275138.
5625 - mean_absolute_error: 407.4014 - val_loss: 164512.9531 -
    val_mean_absolute_error: 378.1241
1190 Epoch 595/598
1191 30/30 [=====] - 0s 2ms/step - loss: 277305.
8125 - mean_absolute_error: 411.3198 - val_loss: 164353.3281 -
    val_mean_absolute_error: 377.0208
1192 Epoch 596/598
1193 30/30 [=====] - 0s 2ms/step - loss: 273359.
5938 - mean_absolute_error: 401.9333 - val_loss: 165985.8750 -
    val_mean_absolute_error: 379.7650
1194 Epoch 597/598
1195 30/30 [=====] - 0s 2ms/step - loss: 271103.
5938 - mean_absolute_error: 403.6725 - val_loss: 165902.0156 -
    val_mean_absolute_error: 380.6317
1196 Epoch 598/598
```

```
1197 30/30 [=====] - 0s 2ms/step - loss: 271811.  
3125 - mean_absolute_error: 404.3811 - val_loss: 168456.3125 -  
val_mean_absolute_error: 382.6857  
1198 30/30 [=====] - 0s 580us/step  
1199 4/4 [=====] - 0s 667us/step  
1200 4/4 [=====] - 0s 667us/step  
1201 Train Data Mean Absolute Error (MAE): 384.2690124511719  
1202 Train Data Mean Absolute Percentage Error (MAPE): 0.057999998331069946  
1203 Train Data Root Mean Squared Error (RMSE): 484.07  
1204 Validation Data Mean Absolute Error (MAE): 382.6860046386719  
1205 Validation Data Mean Absolute Percentage Error (MAPE): 0.  
052000001072883606  
1206 Validation Data Root Mean Squared Error (RMSE): 410.434  
1207 Testing Data Mean Absolute Error (MAE): 850.333984375  
1208 Testing Data Mean Absolute Percentage Error (MAPE): 0.10999999940395355  
1209 Testing Data Root Mean Squared Error (RMSE): 860.451  
1210  
1211  
1212 Variable N Mean SD SE 95% Conf. Interval  
1213 0 Close 936.0 6926.6029 87.0775 2.8462 6921.0172 6932.1886  
1214 The Train Count is: 936  
1215 The Train Max is: 7091.232  
1216 The Train Min is: 6823.115
```

```
1217 The Train Kurtosis is: -1.393318783207567
1218 The Train Skew is: 0.09349518663185201
1219 -
```

		Variable	N	Mean	SD	SE	95% Conf.	Interval
1220								
1221								
1222								
1223	0	Close	116.0	6887.5426	90.1342	8.3687	6870.9658	6904.1195
1224	The Validation Count	is:	116					
1225	The Validation Max	is:	7092.2964					
1226	The Validation Min	is:	6823.115					
1227	The Validation Kurtosis	is:	-0.8121772975860346					
1228	The Validation Skew	is:	0.9246806282399108					
1229								
1230								
1231								
1232								
1233	0	Close	117.0	6875.6297	79.9031	7.387	6860.9988	6890.2607
1234	The Test Count	is:	117					
1235	The Test Max	is:	7092.448					
1236	The Test Min	is:	6823.115					
1237	The Test Kurtosis	is:	-0.028427322962436996					

```
1238 The Test Skew is: 1.172917285512671
1239
1240 Process finished with exit code 0
1241
```