```
import pandas as d
 In [1]:
          import matplotlib.pyplot as m
          import seaborn as sns
          import numpy as n
 In [2]:
          n.random.seed(1337)
          import tensorflow as tf
          from tensorflow import keras
          from tensorflow.keras import layers
          from matplotlib import style
 In [3]:
          m.style.use('ggplot')
          import warnings
 In [4]:
          warnings.filterwarnings('ignore')
          df=d.read_excel('/Users/ayush/Desktop/DATA_NEW.xlsx',engine="openpyxl")
In [14]:
In [15]:
          from sklearn.metrics import mean_absolute_error
```

In [16]: df

\bigcirc 11+	Г٦	6 1	
Out	1 -	O I	
	-		

	Sample No	V	ı	ws	NPD	G	BW	RH	Р	АР	AR	%D	Metal deposition (Kg/hr)
0	1	25	200	5.5	18	20	7.20	3.52	2.38	10.60	19.06	35.73837	3.019104
1	2	27	200	5.5	18	18	9.37	3.77	1.99	11.70	21.02	35.75795	3.329568
2	3	25	220	5.5	18	18	8.55	3.54	2.62	12.38	22.28	35.71841	3.529152
3	4	27	220	5.5	18	20	8.47	3.81	3.54	15.63	21.85	41.70224	3.461040
4	5	25	200	6.5	18	18	7.74	3.06	1.57	6.86	16.69	29.12951	3.124368
5	6	27	200	6.5	18	20	8.72	3.64	2.08	7.98	19.06	29.51183	3.568032
6	7	25	220	6.5	18	20	6.47	3.35	2.48	9.24	16.79	35.49750	3.143088
7	8	27	220	6.5	18	18	8.48	3.00	3.20	12.00	19.54	38.04692	3.657888
8	9	25	200	5.5	20	18	7.24	3.16	1.62	7.49	18.09	29.28069	2.865456
9	10	27	200	5.5	20	20	7.45	3.58	1.90	10.16	19.82	33.88926	3.139488
10	11	25	220	5.5	20	20	9.29	3.61	2.14	9.29	22.74	29.00406	3.602016
11	12	27	220	5.5	20	18	9.09	3.77	2.08	10.80	26.72	28.78465	4.232448
12	13	25	200	6.5	20	20	6.55	3.35	1.85	6.66	18.02	26.98541	3.373344
13	14	27	200	6.5	20	18	7.10	3.12	2.02	6.78	17.72	27.67347	3.317184
14	15	25	220	6.5	20	18	7.47	3.16	2.18	10.38	18.56	35.86731	3.474432
15	16	27	220	6.5	20	20	8.55	3.04	2.20	10.58	20.85	33.66211	3.903120
16	17	24	210	6.0	19	19	7.27	3.44	1.58	7.18	20.40	26.03336	3.525120
17	18	28	210	6.0	19	19	10.31	3.54	3.07	15.00	24.05	38.41229	4.155840
18	19	26	190	6.0	19	19	7.51	3.08	1.62	7.12	17.60	28.80259	3.041280
19	20	26	230	6.0	19	19	8.05	3.47	2.28	11.11	22.44	33.11475	3.877632
20	21	26	210	5.0	19	19	7.79	4.04	3.00	14.69	22.62	39.37282	3.257280

	Sample No	V	ı	ws	NPD	G	BW	RH	Р	АР	AR	%D	Metal deposition (Kg/hr)
21	22	26	210	7.0	19	19	7.48	3.56	2.68	13.56	21.78	38.37012	4.390848
22	23	26	210	6.0	17	19	8.91	3.01	2.55	10.87	17.19	38.73842	2.970432
23	24	26	210	6.0	21	19	9.30	3.18	1.50	9.09	22.16	29.08800	3.829248
24	25	26	210	6.0	19	17	8.20	3.06	2.31	9.96	18.45	35.05808	3.188160
25	26	26	210	6.0	19	21	8.28	3.21	2.40	10.47	17.65	37.23329	3.049920
26	27	26	210	6.0	19	19	7.95	3.55	2.31	10.92	21.34	33.84997	3.687552
27	28	26	210	6.0	19	19	8.46	3.32	1.82	8.57	20.23	29.75694	3.495744
28	29	26	210	6.0	19	19	8.59	3.58	2.14	9.33	19.89	31.93018	3.436992
29	30	26	210	6.0	19	19	8.39	3.64	2.31	11.13	20.92	34.72699	3.614976
30	31	26	210	6.0	19	19	9.65	3.64	2.20	11.46	23.05	33.20777	3.983040
31	32	26	210	6.0	19	19	9.62	3.93	2.00	11.44	24.16	32.13483	4.174848

df.drop(['Sample No','AP','AR'],axis=1,inplace=True)

In [18]: df

TII [TO]:	uı										
Out[18]:		V	1	ws	NPD	G	BW	RH	Р	%D	Metal deposition (Kg/hr)
	0	25	200	5.5	18	20	7.20	3.52	2.38	35.73837	3.019104
	1	27	200	5.5	18	18	9.37	3.77	1.99	35.75795	3.329568
	2	25	220	5.5	18	18	8.55	3.54	2.62	35.71841	3.529152
	3	27	220	5.5	18	20	8.47	3.81	3.54	41.70224	3.461040
	4	25	200	6.5	18	18	7.74	3.06	1.57	29.12951	3.124368
	5	27	200	6.5	18	20	8.72	3.64	2.08	29.51183	3.568032
	6	25	220	6.5	18	20	6.47	3.35	2.48	35.49750	3.143088
	7	27	220	6.5	18	18	8.48	3.00	3.20	38.04692	3.657888
	8	25	200	5.5	20	18	7.24	3.16	1.62	29.28069	2.865456
	9	27	200	5.5	20	20	7.45	3.58	1.90	33.88926	3.139488
	10	25	220	5.5	20	20	9.29	3.61	2.14	29.00406	3.602016
	11	27	220	5.5	20	18	9.09	3.77	2.08	28.78465	4.232448
	12	25	200	6.5	20	20	6.55	3.35	1.85	26.98541	3.373344
	13	27	200	6.5	20	18	7.10	3.12	2.02	27.67347	3.317184
	14	25	220	6.5	20	18	7.47	3.16	2.18	35.86731	3.474432
	15	27	220	6.5	20	20	8.55	3.04	2.20	33.66211	3.903120
	16	24	210	6.0	19	19	7.27	3.44	1.58	26.03336	3.525120
	17	28	210	6.0	19	19	10.31	3.54	3.07	38.41229	4.155840
	18	26	190	6.0	19	19	7.51	3.08	1.62	28.80259	3.041280
	19	26	230	6.0	19	19	8.05	3.47	2.28	33.11475	3.877632
	20	26	210	5.0	19	19	7.79	4.04	3.00	39.37282	3.257280

	V	I	WS	NPD	G	BW	RH	Р	%D	Metal deposition (Kg/hr)
21	26	210	7.0	19	19	7.48	3.56	2.68	38.37012	4.390848
22	26	210	6.0	17	19	8.91	3.01	2.55	38.73842	2.970432
23	26	210	6.0	21	19	9.30	3.18	1.50	29.08800	3.829248
24	26	210	6.0	19	17	8.20	3.06	2.31	35.05808	3.188160
25	26	210	6.0	19	21	8.28	3.21	2.40	37.23329	3.049920
26	26	210	6.0	19	19	7.95	3.55	2.31	33.84997	3.687552
27	26	210	6.0	19	19	8.46	3.32	1.82	29.75694	3.495744
28	26	210	6.0	19	19	8.59	3.58	2.14	31.93018	3.436992
29	26	210	6.0	19	19	8.39	3.64	2.31	34.72699	3.614976
30	26	210	6.0	19	19	9.65	3.64	2.20	33.20777	3.983040
31	26	210	6.0	19	19	9.62	3.93	2.00	32.13483	4.174848

In [19]:

df_repeated=df.iloc[26:32]
df_repeated.describe()

Out[19]:

	V	1	ws	NPD	G	BW	RH	P	%D	Metal deposition (Kg/hr)
count	6.0	6.0	6.0	6.0	6.0	6.000000	6.000000	6.000000	6.000000	6.000000
mean	26.0	210.0	6.0	19.0	19.0	8.776667	3.610000	2.130000	32.601113	3.732192
std	0.0	0.0	0.0	0.0	0.0	0.698847	0.196367	0.191207	1.743784	0.289016
min	26.0	210.0	6.0	19.0	19.0	7.950000	3.320000	1.820000	29.756940	3.436992
25%	26.0	210.0	6.0	19.0	19.0	8.407500	3.557500	2.035000	31.981343	3.525552
50%	26.0	210.0	6.0	19.0	19.0	8.525000	3.610000	2.170000	32.671300	3.651264
75%	26.0	210.0	6.0	19.0	19.0	9.362500	3.640000	2.282500	33.689420	3.909168
max	26.0	210.0	6.0	19.0	19.0	9.650000	3.930000	2.310000	34.726990	4.174848

In [20]:

df.drop(df.index[26:32], axis=0,inplace=True)

In [21]:

. .

	V	1	ws	NPD	G	BW	RH	Р	%D	Metal deposition (Kg/hr)
0	25	200	5.5	18	20	7.20	3.52	2.38	35.73837	3.019104
1	27	200	5.5	18	18	9.37	3.77	1.99	35.75795	3.329568
2	25	220	5.5	18	18	8.55	3.54	2.62	35.71841	3.529152
3	27	220	5.5	18	20	8.47	3.81	3.54	41.70224	3.461040
4	25	200	6.5	18	18	7.74	3.06	1.57	29.12951	3.124368
5	27	200	6.5	18	20	8.72	3.64	2.08	29.51183	3.568032
6	25	220	6.5	18	20	6.47	3.35	2.48	35.49750	3.143088
7	27	220	6.5	18	18	8.48	3.00	3.20	38.04692	3.657888
8	25	200	5.5	20	18	7.24	3.16	1.62	29.28069	2.865456
	1 2 3 4 5 6 7	 0 25 1 27 2 25 3 27 4 25 5 27 6 25 7 27 	 0 25 200 1 27 200 2 25 220 3 27 220 4 25 200 5 27 200 6 25 220 7 27 220 	 25 200 25 200 5.5 220 5.5 220 5.5 220 5.5 220 6.5 	0 25 200 5.5 18 1 27 200 5.5 18 2 25 220 5.5 18 3 27 220 5.5 18 4 25 200 6.5 18 5 27 200 6.5 18 6 25 220 6.5 18 7 27 220 6.5 18	0 25 200 5.5 18 20 1 27 200 5.5 18 18 2 25 220 5.5 18 20 3 27 220 5.5 18 20 4 25 200 6.5 18 18 5 27 200 6.5 18 20 6 25 220 6.5 18 20 7 27 220 6.5 18 18	0 25 200 5.5 18 20 7.20 1 27 200 5.5 18 18 9.37 2 25 220 5.5 18 18 8.55 3 27 220 5.5 18 20 8.47 4 25 200 6.5 18 18 7.74 5 27 200 6.5 18 20 8.72 6 25 220 6.5 18 20 6.47 7 27 220 6.5 18 18 8.48	0 25 200 5.5 18 20 7.20 3.52 1 27 200 5.5 18 18 9.37 3.77 2 25 220 5.5 18 18 8.55 3.54 3 27 220 5.5 18 20 8.47 3.81 4 25 200 6.5 18 18 7.74 3.06 5 27 200 6.5 18 20 8.72 3.64 6 25 220 6.5 18 20 6.47 3.35 7 27 220 6.5 18 20 6.47 3.35 8 20	0 25 200 5.5 18 20 7.20 3.52 2.38 1 27 200 5.5 18 18 9.37 3.77 1.99 2 25 220 5.5 18 18 8.55 3.54 2.62 3 27 220 5.5 18 20 8.47 3.81 3.54 4 25 200 6.5 18 18 7.74 3.06 1.57 5 27 200 6.5 18 20 8.72 3.64 2.08 6 25 220 6.5 18 20 6.47 3.35 2.48 7 27 220 6.5 18 18 8.48 3.00 3.20	0 25 200 5.5 18 20 7.20 3.52 2.38 35.73837 1 27 200 5.5 18 18 9.37 3.77 1.99 35.75795 2 25 220 5.5 18 18 8.55 3.54 2.62 35.71841 3 27 220 5.5 18 20 8.47 3.81 3.54 41.70224 4 25 200 6.5 18 18 7.74 3.06 1.57 29.12951 5 27 200 6.5 18 20 8.72 3.64 2.08 29.51183 6 25 220 6.5 18 20 6.47 3.35 2.48 35.49750 7 27 220 6.5 18 18 8.48 3.00 3.20 38.04692

	V	I	WS	NPD	G	BW	RH	Р	%D	Metal deposition (Kg/hr)
9	27	200	5.5	20	20	7.45	3.58	1.90	33.88926	3.139488
10	25	220	5.5	20	20	9.29	3.61	2.14	29.00406	3.602016
11	27	220	5.5	20	18	9.09	3.77	2.08	28.78465	4.232448
12	25	200	6.5	20	20	6.55	3.35	1.85	26.98541	3.373344
13	27	200	6.5	20	18	7.10	3.12	2.02	27.67347	3.317184
14	25	220	6.5	20	18	7.47	3.16	2.18	35.86731	3.474432
15	27	220	6.5	20	20	8.55	3.04	2.20	33.66211	3.903120
16	24	210	6.0	19	19	7.27	3.44	1.58	26.03336	3.525120
17	28	210	6.0	19	19	10.31	3.54	3.07	38.41229	4.155840
18	26	190	6.0	19	19	7.51	3.08	1.62	28.80259	3.041280
19	26	230	6.0	19	19	8.05	3.47	2.28	33.11475	3.877632
20	26	210	5.0	19	19	7.79	4.04	3.00	39.37282	3.257280
21	26	210	7.0	19	19	7.48	3.56	2.68	38.37012	4.390848
22	26	210	6.0	17	19	8.91	3.01	2.55	38.73842	2.970432
23	26	210	6.0	21	19	9.30	3.18	1.50	29.08800	3.829248
24	26	210	6.0	19	17	8.20	3.06	2.31	35.05808	3.188160
25	26	210	6.0	19	21	8.28	3.21	2.40	37.23329	3.049920

In [22]: df2 = {'V':26, 'I': 210, 'WS': 6.0, 'NPD':19, 'G':19, 'BW':8.52, 'RH':3.31, 'P':2.
 df_new = df.append(df2, ignore_index = True)
 display(df_new)

	V	I	WS	NPD	G	BW	RH	Р	%D	Metal deposition (Kg/hr)
0	25.0	200.0	5.5	18.0	20.0	7.20	3.52	2.38	35.73837	3.019104
1	27.0	200.0	5.5	18.0	18.0	9.37	3.77	1.99	35.75795	3.329568
2	25.0	220.0	5.5	18.0	18.0	8.55	3.54	2.62	35.71841	3.529152
3	27.0	220.0	5.5	18.0	20.0	8.47	3.81	3.54	41.70224	3.461040
4	25.0	200.0	6.5	18.0	18.0	7.74	3.06	1.57	29.12951	3.124368
5	27.0	200.0	6.5	18.0	20.0	8.72	3.64	2.08	29.51183	3.568032
6	25.0	220.0	6.5	18.0	20.0	6.47	3.35	2.48	35.49750	3.143088
7	27.0	220.0	6.5	18.0	18.0	8.48	3.00	3.20	38.04692	3.657888
8	25.0	200.0	5.5	20.0	18.0	7.24	3.16	1.62	29.28069	2.865456
9	27.0	200.0	5.5	20.0	20.0	7.45	3.58	1.90	33.88926	3.139488
10	25.0	220.0	5.5	20.0	20.0	9.29	3.61	2.14	29.00406	3.602016
11	27.0	220.0	5.5	20.0	18.0	9.09	3.77	2.08	28.78465	4.232448
12	25.0	200.0	6.5	20.0	20.0	6.55	3.35	1.85	26.98541	3.373344
13	27.0	200.0	6.5	20.0	18.0	7.10	3.12	2.02	27.67347	3.317184
14	25.0	220.0	6.5	20.0	18.0	7.47	3.16	2.18	35.86731	3.474432
15	27.0	220.0	6.5	20.0	20.0	8.55	3.04	2.20	33.66211	3.903120

	V	I	ws	NPD	G	BW	RH	Р	%D	Metal deposition (Kg/hr)
16	24.0	210.0	6.0	19.0	19.0	7.27	3.44	1.58	26.03336	3.525120
17	28.0	210.0	6.0	19.0	19.0	10.31	3.54	3.07	38.41229	4.155840
18	26.0	190.0	6.0	19.0	19.0	7.51	3.08	1.62	28.80259	3.041280
19	26.0	230.0	6.0	19.0	19.0	8.05	3.47	2.28	33.11475	3.877632
20	26.0	210.0	5.0	19.0	19.0	7.79	4.04	3.00	39.37282	3.257280
21	26.0	210.0	7.0	19.0	19.0	7.48	3.56	2.68	38.37012	4.390848
22	26.0	210.0	6.0	17.0	19.0	8.91	3.01	2.55	38.73842	2.970432
23	26.0	210.0	6.0	21.0	19.0	9.30	3.18	1.50	29.08800	3.829248
24	26.0	210.0	6.0	19.0	17.0	8.20	3.06	2.31	35.05808	3.188160
25	26.0	210.0	6.0	19.0	21.0	8.28	3.21	2.40	37.23329	3.049920
26	26.0	210.0	6.0	19.0	19.0	8.52	3.31	2.17	32.67000	3.650000

In [170... df_new

Out[170...

u.	_110 W								
	V	ı	ws	NPD	GFR	BW	RH	Р	%D
0	25.0	200.0	5.5	18.0	20.0	7.20	3.25	2.38	35.7384
1	27.0	200.0	5.5	18.0	18.0	9.37	3.61	1.99	35.7579
2	25.0	220.0	5.5	18.0	18.0	8.55	3.43	2.62	35.7184
3	27.0	220.0	5.5	18.0	20.0	8.47	3.64	3.54	41.7022
4	25.0	200.0	6.5	18.0	18.0	7.74	2.65	1.57	29.1295
5	27.0	200.0	6.5	18.0	20.0	8.72	3.43	2.08	29.5118
6	25.0	220.0	6.5	18.0	20.0	6.47	3.25	2.48	35.4975
7	27.0	220.0	6.5	18.0	18.0	8.48	3.38	3.20	38.0469
8	25.0	200.0	5.5	20.0	18.0	7.24	3.40	1.62	29.2807
9	27.0	200.0	5.5	20.0	20.0	7.45	3.50	1.90	33.8893
10	25.0	220.0	5.5	20.0	20.0	9.29	4.00	2.14	29.0041
11	27.0	220.0	5.5	20.0	18.0	9.09	3.60	2.08	28.7846
12	25.0	200.0	6.5	20.0	20.0	6.55	3.40	1.85	26.9854
13	27.0	200.0	6.5	20.0	18.0	7.10	3.04	2.02	27.6735
14	25.0	220.0	6.5	20.0	18.0	7.47	3.47	2.18	35.8673
15	27.0	220.0	6.5	20.0	20.0	8.55	3.42	2.20	33.6621
16	24.0	210.0	6.0	19.0	19.0	7.27	3.19	1.58	26.0334
17	28.0	210.0	6.0	19.0	19.0	10.31	3.49	3.07	38.4123
18	26.0	190.0	6.0	19.0	19.0	7.51	3.24	1.62	28.8026
19	26.0	230.0	6.0	19.0	19.0	8.05	3.46	2.28	33.1148
20	26.0	210.0	5.0	19.0	19.0	7.79	3.88	3.00	39.3728
21	26.0	210.0	7.0	19.0	19.0	7.48	3.08	2.68	38.3701
22	26.0	210.0	6.0	17.0	19.0	8.91	2.96	2.55	38.7384

	V	I	WS	NPD	GFR	BW	RH	Р	%D
23	26.0	210.0	6.0	21.0	19.0	9.30	3.38	1.50	29.0880
24	26.0	210.0	6.0	19.0	17.0	8.20	3.20	2.31	35.0581
25	26.0	210.0	6.0	19.0	21.0	8.28	3.81	2.40	37.2333
26	26.0	210.0	6.0	19.0	19.0	8.52	3.31	2.17	32.6700

1:BEAD WIDTH

```
In [56]: X=df.loc[:,['V','I','WS','NPD','G']] # Features!
Y=df['Metal deposition (Kg/hr)'] # Target!

# Copy of original X and Y!!
X_copy=X
Y_copy=Y
```

```
In [85]: from sklearn.preprocessing import StandardScaler
    Sx=StandardScaler()
    X = Sx.fit_transform(X)
```

```
In [87]: optimizer = tf.keras.optimizers.Adam(learning_rate=0.01)
    model.compile(loss=tf.keras.losses.MeanSquaredError(),optimizer=optimizer,met.
    model.summary()
```

Model: "sequential 10"

Layer (type)	Output Shape	Param #						
dense_52 (Dense)	(None, 15)	90						
dense_53 (Dense)	(None, 10)	160						
dense_54 (Dense)	(None, 5)	55						
dense_55 (Dense)	(None, 2)	12						
dense_56 (Dense)	(None, 1)	3						
Total params: 320 Trainable params: 320								

```
In [88]: history=model.fit(X,Y,epochs=300,validation_split=0.03,shuffle=True)
```

Non-trainable params: 0

```
827 - val_loss: 4.6427 - val_mae: 2.1547
Epoch 4/300
501 - val_loss: 4.8857 - val_mae: 2.2104
Epoch 5/300
17 - val_loss: 5.1179 - val_mae: 2.2623
Epoch 6/300
50 - val_loss: 5.3609 - val_mae: 2.3154
Epoch 7/300
09 - val_loss: 5.4658 - val_mae: 2.3379
Epoch 8/300
1/1 [============ ] - 0s 60ms/step - loss: 7.0533 - mae: 2.62
04 - val_loss: 5.3816 - val_mae: 2.3198
Epoch 9/300
49 - val_loss: 5.1341 - val_mae: 2.2658
Epoch 10/300
97 - val loss: 4.7554 - val mae: 2.1807
Epoch 11/300
1/1 [============== ] - 0s 52ms/step - loss: 5.2283 - mae: 2.24
33 - val_loss: 4.3206 - val_mae: 2.0786
Epoch 12/300
95 - val_loss: 3.8735 - val_mae: 1.9681
Epoch 13/300
1/1 [============= ] - 0s 55ms/step - loss: 4.1894 - mae: 2.00
04 - val_loss: 3.4415 - val_mae: 1.8551
Epoch 14/300
69 - val_loss: 3.0401 - val_mae: 1.7436
Epoch 15/300
1/1 [============== ] - 0s 53ms/step - loss: 3.3416 - mae: 1.78
05 - val_loss: 2.6749 - val_mae: 1.6355
Epoch 16/300
07 - val_loss: 2.3471 - val_mae: 1.5320
Epoch 17/300
1/1 [============== ] - 0s 53ms/step - loss: 2.6796 - mae: 1.58
86 - val_loss: 2.0569 - val_mae: 1.4342
Epoch 18/300
1/1 [============== ] - 0s 44ms/step - loss: 2.4114 - mae: 1.50
43 - val_loss: 1.8030 - val_mae: 1.3428
Epoch 19/300
66 - val_loss: 1.5829 - val_mae: 1.2581
Epoch 20/300
49 - val loss: 1.3935 - val mae: 1.1805
Epoch 21/300
1/1 [============= ] - 0s 65ms/step - loss: 1.7906 - mae: 1.28
85 - val loss: 1.2299 - val mae: 1.1090
Epoch 22/300
1/1 [============ ] - 0s 52ms/step - loss: 1.6291 - mae: 1.22
60 - val loss: 1.0810 - val mae: 1.0397
Epoch 23/300
73 - val loss: 0.9406 - val mae: 0.9698
Epoch 24/300
1/1 [============= ] - 0s 58ms/step - loss: 1.3548 - mae: 1.11
14 - val loss: 0.8197 - val mae: 0.9054
Epoch 25/300
1/1 [============ ] - 0s 50ms/step - loss: 1.2361 - mae: 1.05
76 - val loss: 0.7133 - val mae: 0.8446
Epoch 26/300
1/1 [============== ] - 0s 44ms/step - loss: 1.1264 - mae: 1.00
```

```
52 - val_loss: 0.6169 - val_mae: 0.7854
Epoch 27/300
36 - val_loss: 0.5282 - val_mae: 0.7267
Epoch 28/300
22 - val_loss: 0.4453 - val_mae: 0.6673
Epoch 29/300
1/1 [============= ] - 0s 79ms/step - loss: 0.8372 - mae: 0.85
01 - val_loss: 0.3675 - val_mae: 0.6062
Epoch 30/300
81 - val_loss: 0.2946 - val_mae: 0.5428
Epoch 31/300
53 - val_loss: 0.2270 - val_mae: 0.4764
Epoch 32/300
10 - val_loss: 0.1601 - val_mae: 0.4001
Epoch 33/300
43 - val loss: 0.0944 - val mae: 0.3072
Epoch 34/300
1/1 [============== ] - 0s 56ms/step - loss: 0.4524 - mae: 0.57
84 - val_loss: 0.0498 - val_mae: 0.2231
Epoch 35/300
49 - val_loss: 0.0216 - val_mae: 0.1469
Epoch 36/300
1/1 [============== ] - 0s 52ms/step - loss: 0.3426 - mae: 0.47
86 - val_loss: 0.0061 - val_mae: 0.0779
Epoch 37/300
50 - val_loss: 2.3179e-04 - val_mae: 0.0152
Epoch 38/300
1/1 [============== ] - 0s 51ms/step - loss: 0.2655 - mae: 0.39
59 - val_loss: 0.0018 - val_mae: 0.0420
Epoch 39/300
66 - val_loss: 0.0089 - val_mae: 0.0945
Epoch 40/300
1/1 [============== ] - 0s 61ms/step - loss: 0.2131 - mae: 0.34
54 - val_loss: 0.0204 - val_mae: 0.1428
Epoch 41/300
04 - val_loss: 0.0351 - val_mae: 0.1874
Epoch 42/300
96 - val_loss: 0.0522 - val_mae: 0.2286
Epoch 43/300
1/1 [============= ] - 0s 47ms/step - loss: 0.1668 - mae: 0.31
36 - val loss: 0.0711 - val mae: 0.2666
Epoch 44/300
1/1 [============ ] - 0s 43ms/step - loss: 0.1578 - mae: 0.30
99 - val loss: 0.0910 - val mae: 0.3016
Epoch 45/300
66 - val loss: 0.1114 - val mae: 0.3338
Epoch 46/300
34 - val loss: 0.1319 - val mae: 0.3632
Epoch 47/300
1/1 [============= ] - 0s 63ms/step - loss: 0.1446 - mae: 0.30
26 - val loss: 0.1520 - val mae: 0.3899
Epoch 48/300
1/1 [============ ] - 0s 72ms/step - loss: 0.1436 - mae: 0.30
35 - val loss: 0.1713 - val mae: 0.4139
Epoch 49/300
1/1 [============== ] - 0s 78ms/step - loss: 0.1437 - mae: 0.30
```

```
64 - val_loss: 0.1895 - val_mae: 0.4354
Epoch 50/300
89 - val_loss: 0.2063 - val_mae: 0.4542
Epoch 51/300
16 - val_loss: 0.2215 - val_mae: 0.4706
Epoch 52/300
59 - val_loss: 0.2348 - val_mae: 0.4846
Epoch 53/300
06 - val_loss: 0.2462 - val_mae: 0.4962
Epoch 54/300
46 - val_loss: 0.2556 - val_mae: 0.5055
Epoch 55/300
77 - val_loss: 0.2628 - val_mae: 0.5127
Epoch 56/300
01 - val loss: 0.2680 - val mae: 0.5177
Epoch 57/300
16 - val_loss: 0.2711 - val_mae: 0.5207
Epoch 58/300
24 - val_loss: 0.2723 - val_mae: 0.5218
Epoch 59/300
1/1 [============== ] - 0s 70ms/step - loss: 0.1562 - mae: 0.33
25 - val_loss: 0.2717 - val_mae: 0.5212
Epoch 60/300
20 - val_loss: 0.2693 - val_mae: 0.5189
Epoch 61/300
1/1 [============== ] - 0s 43ms/step - loss: 0.1546 - mae: 0.33
08 - val_loss: 0.2654 - val_mae: 0.5151
Epoch 62/300
89 - val_loss: 0.2600 - val_mae: 0.5099
Epoch 63/300
1/1 [============== ] - 0s 47ms/step - loss: 0.1512 - mae: 0.32
65 - val_loss: 0.2534 - val_mae: 0.5034
Epoch 64/300
1/1 [============== ] - 0s 38ms/step - loss: 0.1490 - mae: 0.32
36 - val_loss: 0.2457 - val_mae: 0.4957
Epoch 65/300
1/1 [============= ] - 0s 38ms/step - loss: 0.1465 - mae: 0.32
01 - val_loss: 0.2371 - val_mae: 0.4869
Epoch 66/300
62 - val loss: 0.2276 - val mae: 0.4771
Epoch 67/300
1/1 [============== ] - 0s 34ms/step - loss: 0.1407 - mae: 0.31
18 - val loss: 0.2175 - val mae: 0.4664
Epoch 68/300
1/1 [============= ] - 0s 36ms/step - loss: 0.1376 - mae: 0.30
69 - val loss: 0.2069 - val mae: 0.4549
Epoch 69/300
17 - val loss: 0.1958 - val mae: 0.4425
Epoch 70/300
1/1 [============= ] - 0s 45ms/step - loss: 0.1310 - mae: 0.29
69 - val_loss: 0.1845 - val_mae: 0.4295
Epoch 71/300
1/1 [============== ] - 0s 44ms/step - loss: 0.1276 - mae: 0.29
16 - val loss: 0.1729 - val mae: 0.4158
Epoch 72/300
1/1 [============== ] - 0s 40ms/step - loss: 0.1242 - mae: 0.28
```

```
65 - val_loss: 0.1611 - val_mae: 0.4014
Epoch 73/300
11 - val_loss: 0.1492 - val_mae: 0.3863
Epoch 74/300
54 - val_loss: 0.1372 - val_mae: 0.3704
Epoch 75/300
1/1 [============ ] - 0s 36ms/step - loss: 0.1138 - mae: 0.26
90 - val_loss: 0.1252 - val_mae: 0.3538
Epoch 76/300
1/1 [============= ] - 0s 37ms/step - loss: 0.1105 - mae: 0.26
20 - val_loss: 0.1131 - val_mae: 0.3364
Epoch 77/300
1/1 [============= ] - 0s 38ms/step - loss: 0.1074 - mae: 0.25
40 - val_loss: 0.1011 - val_mae: 0.3180
Epoch 78/300
21 - val_loss: 0.0891 - val_mae: 0.2985
Epoch 79/300
21 - val loss: 0.0773 - val mae: 0.2780
Epoch 80/300
13 - val_loss: 0.0658 - val_mae: 0.2564
Epoch 81/300
89 - val_loss: 0.0547 - val_mae: 0.2339
Epoch 82/300
1/1 [============== ] - 0s 49ms/step - loss: 0.1000 - mae: 0.24
86 - val_loss: 0.0446 - val_mae: 0.2111
Epoch 83/300
72 - val_loss: 0.0357 - val_mae: 0.1889
Epoch 84/300
1/1 [============== ] - 0s 38ms/step - loss: 0.0976 - mae: 0.24
51 - val_loss: 0.0282 - val_mae: 0.1681
Epoch 85/300
17 - val_loss: 0.0225 - val_mae: 0.1501
Epoch 86/300
1/1 [============== ] - 0s 46ms/step - loss: 0.0955 - mae: 0.23
98 - val_loss: 0.0186 - val_mae: 0.1365
Epoch 87/300
81 - val_loss: 0.0165 - val_mae: 0.1284
Epoch 88/300
52 - val_loss: 0.0159 - val_mae: 0.1260
Epoch 89/300
1/1 [============= ] - 0s 33ms/step - loss: 0.0929 - mae: 0.23
44 - val loss: 0.0167 - val mae: 0.1293
Epoch 90/300
1/1 [============ ] - 0s 38ms/step - loss: 0.0916 - mae: 0.23
29 - val loss: 0.0190 - val mae: 0.1378
Epoch 91/300
10 - val loss: 0.0226 - val mae: 0.1504
Epoch 92/300
86 - val loss: 0.0277 - val mae: 0.1663
Epoch 93/300
1/1 [============= ] - 0s 42ms/step - loss: 0.0868 - mae: 0.22
50 - val loss: 0.0338 - val mae: 0.1838
Epoch 94/300
1/1 [============= ] - 0s 57ms/step - loss: 0.0853 - mae: 0.22
19 - val loss: 0.0407 - val mae: 0.2017
Epoch 95/300
1/1 [============== ] - 0s 39ms/step - loss: 0.0841 - mae: 0.22
```

```
00 - val_loss: 0.0479 - val_mae: 0.2188
Epoch 96/300
84 - val_loss: 0.0549 - val_mae: 0.2344
Epoch 97/300
81 - val_loss: 0.0615 - val_mae: 0.2481
Epoch 98/300
81 - val_loss: 0.0673 - val_mae: 0.2594
Epoch 99/300
81 - val_loss: 0.0719 - val_mae: 0.2681
Epoch 100/300
81 - val_loss: 0.0751 - val_mae: 0.2741
Epoch 101/300
1/1 [============= ] - 0s 38ms/step - loss: 0.0807 - mae: 0.21
80 - val_loss: 0.0770 - val_mae: 0.2775
Epoch 102/300
79 - val_loss: 0.0775 - val_mae: 0.2784
Epoch 103/300
1/1 [============== ] - 0s 42ms/step - loss: 0.0799 - mae: 0.21
77 - val_loss: 0.0768 - val_mae: 0.2771
Epoch 104/300
74 - val_loss: 0.0750 - val_mae: 0.2739
Epoch 105/300
1/1 [============== ] - 0s 39ms/step - loss: 0.0790 - mae: 0.21
71 - val_loss: 0.0725 - val_mae: 0.2692
Epoch 106/300
65 - val_loss: 0.0692 - val_mae: 0.2631
Epoch 107/300
1/1 [============== ] - 0s 39ms/step - loss: 0.0779 - mae: 0.21
57 - val_loss: 0.0656 - val_mae: 0.2561
Epoch 108/300
47 - val_loss: 0.0618 - val_mae: 0.2486
Epoch 109/300
1/1 [============== ] - 0s 51ms/step - loss: 0.0769 - mae: 0.21
37 - val_loss: 0.0581 - val_mae: 0.2410
Epoch 110/300
1/1 [============== ] - 0s 40ms/step - loss: 0.0764 - mae: 0.21
26 - val_loss: 0.0546 - val_mae: 0.2338
Epoch 111/300
1/1 [============= ] - 0s 40ms/step - loss: 0.0760 - mae: 0.21
14 - val_loss: 0.0517 - val_mae: 0.2274
Epoch 112/300
04 - val loss: 0.0495 - val mae: 0.2224
Epoch 113/300
1/1 [============ ] - 0s 50ms/step - loss: 0.0755 - mae: 0.20
93 - val loss: 0.0479 - val mae: 0.2190
Epoch 114/300
83 - val loss: 0.0472 - val mae: 0.2173
Epoch 115/300
74 - val loss: 0.0472 - val mae: 0.2173
Epoch 116/300
1/1 [============= ] - 0s 37ms/step - loss: 0.0748 - mae: 0.20
63 - val loss: 0.0479 - val mae: 0.2189
Epoch 117/300
1/1 [============ ] - 0s 41ms/step - loss: 0.0745 - mae: 0.20
49 - val loss: 0.0491 - val mae: 0.2216
Epoch 118/300
1/1 [============== ] - 0s 77ms/step - loss: 0.0743 - mae: 0.20
```

```
36 - val_loss: 0.0507 - val_mae: 0.2251
Epoch 119/300
28 - val_loss: 0.0524 - val_mae: 0.2289
Epoch 120/300
1/1 [============= ] - 0s 40ms/step - loss: 0.0738 - mae: 0.20
25 - val_loss: 0.0541 - val_mae: 0.2326
Epoch 121/300
24 - val_loss: 0.0556 - val_mae: 0.2359
Epoch 122/300
1/1 [============ ] - 0s 45ms/step - loss: 0.0734 - mae: 0.20
22 - val_loss: 0.0568 - val_mae: 0.2384
Epoch 123/300
18 - val_loss: 0.0576 - val_mae: 0.2400
Epoch 124/300
1/1 [===========] - 0s 43ms/step - loss: 0.0730 - mae: 0.20
13 - val_loss: 0.0580 - val_mae: 0.2407
Epoch 125/300
1/1 [============= ] - 0s 36ms/step - loss: 0.0728 - mae: 0.20
06 - val_loss: 0.0579 - val_mae: 0.2406
Epoch 126/300
1/1 [============== ] - 0s 42ms/step - loss: 0.0725 - mae: 0.20
00 - val_loss: 0.0574 - val_mae: 0.2396
Epoch 127/300
95 - val_loss: 0.0566 - val_mae: 0.2380
Epoch 128/300
1/1 [============== ] - 0s 37ms/step - loss: 0.0721 - mae: 0.19
88 - val_loss: 0.0557 - val_mae: 0.2361
Epoch 129/300
80 - val_loss: 0.0547 - val_mae: 0.2340
Epoch 130/300
1/1 [============== ] - 0s 37ms/step - loss: 0.0716 - mae: 0.19
71 - val_loss: 0.0538 - val_mae: 0.2321
Epoch 131/300
61 - val_loss: 0.0531 - val_mae: 0.2305
Epoch 132/300
1/1 [============== ] - 0s 40ms/step - loss: 0.0712 - mae: 0.19
54 - val_loss: 0.0526 - val_mae: 0.2294
Epoch 133/300
1/1 [============== ] - 0s 33ms/step - loss: 0.0710 - mae: 0.19
52 - val_loss: 0.0524 - val_mae: 0.2290
Epoch 134/300
1/1 [============ ] - 0s 36ms/step - loss: 0.0709 - mae: 0.19
49 - val_loss: 0.0525 - val_mae: 0.2292
Epoch 135/300
1/1 [============= ] - 0s 45ms/step - loss: 0.0707 - mae: 0.19
47 - val loss: 0.0529 - val mae: 0.2300
Epoch 136/300
1/1 [============= ] - 0s 36ms/step - loss: 0.0705 - mae: 0.19
44 - val loss: 0.0535 - val mae: 0.2313
Epoch 137/300
40 - val loss: 0.0542 - val mae: 0.2329
Epoch 138/300
36 - val loss: 0.0550 - val mae: 0.2346
Epoch 139/300
1/1 [============ ] - 0s 36ms/step - loss: 0.0699 - mae: 0.19
31 - val_loss: 0.0558 - val_mae: 0.2362
Epoch 140/300
1/1 [============] - 0s 41ms/step - loss: 0.0697 - mae: 0.19
26 - val loss: 0.0565 - val mae: 0.2377
Epoch 141/300
1/1 [============== ] - 0s 40ms/step - loss: 0.0695 - mae: 0.19
```

```
22 - val_loss: 0.0571 - val_mae: 0.2390
Epoch 142/300
1/1 [============= ] - 0s 35ms/step - loss: 0.0693 - mae: 0.19
17 - val_loss: 0.0575 - val_mae: 0.2398
Epoch 143/300
1/1 [============ ] - 0s 37ms/step - loss: 0.0691 - mae: 0.19
11 - val_loss: 0.0578 - val_mae: 0.2403
Epoch 144/300
05 - val_loss: 0.0579 - val_mae: 0.2405
Epoch 145/300
1/1 [============ ] - 0s 38ms/step - loss: 0.0688 - mae: 0.18
99 - val_loss: 0.0578 - val_mae: 0.2405
Epoch 146/300
1/1 [============ ] - 0s 39ms/step - loss: 0.0686 - mae: 0.18
93 - val_loss: 0.0577 - val_mae: 0.2402
Epoch 147/300
1/1 [============ ] - 0s 39ms/step - loss: 0.0684 - mae: 0.18
87 - val_loss: 0.0576 - val_mae: 0.2399
Epoch 148/300
80 - val_loss: 0.0574 - val_mae: 0.2396
Epoch 149/300
1/1 [============== ] - 0s 38ms/step - loss: 0.0680 - mae: 0.18
74 - val_loss: 0.0573 - val_mae: 0.2395
Epoch 150/300
67 - val_loss: 0.0574 - val_mae: 0.2395
Epoch 151/300
1/1 [============== ] - 0s 37ms/step - loss: 0.0677 - mae: 0.18
61 - val_loss: 0.0575 - val_mae: 0.2397
Epoch 152/300
55 - val_loss: 0.0577 - val_mae: 0.2402
Epoch 153/300
1/1 [============== ] - 0s 39ms/step - loss: 0.0674 - mae: 0.18
50 - val_loss: 0.0580 - val_mae: 0.2409
Epoch 154/300
1/1 [============== ] - 0s 40ms/step - loss: 0.0672 - mae: 0.18
46 - val_loss: 0.0584 - val_mae: 0.2417
Epoch 155/300
1/1 [============== ] - 0s 58ms/step - loss: 0.0670 - mae: 0.18
41 - val_loss: 0.0589 - val_mae: 0.2428
Epoch 156/300
1/1 [============== ] - 0s 45ms/step - loss: 0.0668 - mae: 0.18
37 - val_loss: 0.0595 - val_mae: 0.2439
Epoch 157/300
1/1 [============= ] - 0s 46ms/step - loss: 0.0667 - mae: 0.18
32 - val_loss: 0.0600 - val_mae: 0.2450
Epoch 158/300
1/1 [============ ] - 0s 37ms/step - loss: 0.0665 - mae: 0.18
29 - val loss: 0.0606 - val mae: 0.2461
Epoch 159/300
1/1 [============= ] - 0s 45ms/step - loss: 0.0663 - mae: 0.18
25 - val loss: 0.0611 - val mae: 0.2472
Epoch 160/300
1/1 [============ ] - 0s 36ms/step - loss: 0.0662 - mae: 0.18
22 - val loss: 0.0616 - val mae: 0.2482
Epoch 161/300
19 - val loss: 0.0620 - val mae: 0.2490
Epoch 162/300
1/1 [============= ] - 0s 36ms/step - loss: 0.0658 - mae: 0.18
16 - val_loss: 0.0624 - val_mae: 0.2499
Epoch 163/300
1/1 [============= ] - 0s 39ms/step - loss: 0.0656 - mae: 0.18
12 - val loss: 0.0628 - val mae: 0.2506
Epoch 164/300
1/1 [============== ] - 0s 39ms/step - loss: 0.0655 - mae: 0.18
```

```
09 - val_loss: 0.0632 - val_mae: 0.2513
Epoch 165/300
1/1 [============= ] - 0s 44ms/step - loss: 0.0653 - mae: 0.18
04 - val_loss: 0.0635 - val_mae: 0.2520
Epoch 166/300
1/1 [============ ] - 0s 36ms/step - loss: 0.0651 - mae: 0.18
00 - val_loss: 0.0639 - val_mae: 0.2528
Epoch 167/300
96 - val_loss: 0.0643 - val_mae: 0.2537
Epoch 168/300
1/1 [============= ] - 0s 39ms/step - loss: 0.0647 - mae: 0.17
91 - val_loss: 0.0648 - val_mae: 0.2546
Epoch 169/300
1/1 [============= ] - 0s 38ms/step - loss: 0.0645 - mae: 0.17
86 - val_loss: 0.0653 - val_mae: 0.2556
Epoch 170/300
1/1 [============] - 0s 44ms/step - loss: 0.0643 - mae: 0.17
82 - val_loss: 0.0659 - val_mae: 0.2568
Epoch 171/300
77 - val_loss: 0.0666 - val_mae: 0.2580
Epoch 172/300
1/1 [============== ] - 0s 41ms/step - loss: 0.0639 - mae: 0.17
72 - val_loss: 0.0673 - val_mae: 0.2593
Epoch 173/300
68 - val_loss: 0.0680 - val_mae: 0.2607
Epoch 174/300
1/1 [============== ] - 0s 41ms/step - loss: 0.0635 - mae: 0.17
64 - val_loss: 0.0687 - val_mae: 0.2622
Epoch 175/300
60 - val_loss: 0.0695 - val_mae: 0.2637
Epoch 176/300
1/1 [============== ] - 0s 36ms/step - loss: 0.0630 - mae: 0.17
56 - val_loss: 0.0703 - val_mae: 0.2652
Epoch 177/300
52 - val_loss: 0.0711 - val_mae: 0.2667
Epoch 178/300
1/1 [============== ] - 0s 41ms/step - loss: 0.0626 - mae: 0.17
48 - val_loss: 0.0720 - val_mae: 0.2682
Epoch 179/300
1/1 [============== ] - 0s 46ms/step - loss: 0.0623 - mae: 0.17
44 - val_loss: 0.0728 - val_mae: 0.2698
Epoch 180/300
1/1 [============= ] - 0s 50ms/step - loss: 0.0621 - mae: 0.17
40 - val_loss: 0.0737 - val_mae: 0.2714
Epoch 181/300
1/1 [============= ] - 0s 48ms/step - loss: 0.0618 - mae: 0.17
36 - val loss: 0.0746 - val mae: 0.2731
Epoch 182/300
1/1 [============= ] - 0s 45ms/step - loss: 0.0616 - mae: 0.17
31 - val loss: 0.0756 - val mae: 0.2749
Epoch 183/300
27 - val loss: 0.0766 - val mae: 0.2767
Epoch 184/300
21 - val loss: 0.0777 - val mae: 0.2787
Epoch 185/300
1/1 [============= ] - 0s 41ms/step - loss: 0.0608 - mae: 0.17
16 - val_loss: 0.0788 - val_mae: 0.2808
Epoch 186/300
1/1 [============== ] - 0s 41ms/step - loss: 0.0605 - mae: 0.17
10 - val loss: 0.0801 - val mae: 0.2830
Epoch 187/300
1/1 [============== ] - 0s 44ms/step - loss: 0.0602 - mae: 0.17
```

```
04 - val_loss: 0.0814 - val_mae: 0.2853
Epoch 188/300
1/1 [============ ] - 0s 77ms/step - loss: 0.0599 - mae: 0.16
97 - val_loss: 0.0828 - val_mae: 0.2878
Epoch 189/300
1/1 [============ ] - 0s 38ms/step - loss: 0.0596 - mae: 0.16
92 - val_loss: 0.0843 - val_mae: 0.2903
Epoch 190/300
87 - val_loss: 0.0858 - val_mae: 0.2929
Epoch 191/300
1/1 [============ ] - 0s 39ms/step - loss: 0.0591 - mae: 0.16
82 - val_loss: 0.0873 - val_mae: 0.2954
Epoch 192/300
1/1 [============= ] - 0s 36ms/step - loss: 0.0587 - mae: 0.16
78 - val_loss: 0.0888 - val_mae: 0.2980
Epoch 193/300
1/1 [============ ] - 0s 37ms/step - loss: 0.0584 - mae: 0.16
73 - val_loss: 0.0903 - val_mae: 0.3005
Epoch 194/300
69 - val_loss: 0.0918 - val_mae: 0.3030
Epoch 195/300
1/1 [============== ] - 0s 42ms/step - loss: 0.0576 - mae: 0.16
64 - val_loss: 0.0933 - val_mae: 0.3055
Epoch 196/300
60 - val_loss: 0.0949 - val_mae: 0.3080
Epoch 197/300
1/1 [============== ] - 0s 33ms/step - loss: 0.0565 - mae: 0.16
54 - val_loss: 0.0965 - val_mae: 0.3106
Epoch 198/300
48 - val_loss: 0.0985 - val_mae: 0.3139
Epoch 199/300
1/1 [============== ] - 0s 37ms/step - loss: 0.0549 - mae: 0.16
42 - val_loss: 0.1008 - val_mae: 0.3175
Epoch 200/300
1/1 [============== ] - 0s 38ms/step - loss: 0.0539 - mae: 0.16
35 - val_loss: 0.1034 - val_mae: 0.3215
Epoch 201/300
1/1 [============== ] - 0s 34ms/step - loss: 0.0527 - mae: 0.16
28 - val_loss: 0.1061 - val_mae: 0.3257
Epoch 202/300
1/1 [============== ] - 0s 64ms/step - loss: 0.0512 - mae: 0.16
17 - val_loss: 0.1087 - val_mae: 0.3296
Epoch 203/300
1/1 [============= ] - 0s 47ms/step - loss: 0.0496 - mae: 0.15
98 - val_loss: 0.1108 - val_mae: 0.3328
Epoch 204/300
64 - val loss: 0.1115 - val mae: 0.3338
Epoch 205/300
1/1 [===========] - 0s 36ms/step - loss: 0.0471 - mae: 0.15
15 - val loss: 0.1091 - val mae: 0.3303
Epoch 206/300
46 - val loss: 0.1022 - val mae: 0.3196
Epoch 207/300
70 - val loss: 0.0921 - val mae: 0.3035
Epoch 208/300
1/1 [============ ] - 0s 41ms/step - loss: 0.0435 - mae: 0.13
01 - val_loss: 0.0823 - val_mae: 0.2870
Epoch 209/300
1/1 [============= ] - 0s 40ms/step - loss: 0.0430 - mae: 0.12
89 - val loss: 0.0759 - val mae: 0.2754
Epoch 210/300
1/1 [============== ] - 0s 38ms/step - loss: 0.0428 - mae: 0.13
```

```
08 - val_loss: 0.0740 - val_mae: 0.2721
Epoch 211/300
1/1 [============= ] - 0s 38ms/step - loss: 0.0421 - mae: 0.12
97 - val_loss: 0.0767 - val_mae: 0.2770
Epoch 212/300
1/1 [============= ] - 0s 43ms/step - loss: 0.0410 - mae: 0.12
42 - val_loss: 0.0824 - val_mae: 0.2871
Epoch 213/300
61 - val_loss: 0.0881 - val_mae: 0.2969
Epoch 214/300
1/1 [============ ] - 0s 34ms/step - loss: 0.0393 - mae: 0.11
40 - val_loss: 0.0915 - val_mae: 0.3025
Epoch 215/300
24 - val_loss: 0.0934 - val_mae: 0.3057
Epoch 216/300
1/1 [===========] - 0s 37ms/step - loss: 0.0368 - mae: 0.11
32 - val_loss: 0.0965 - val_mae: 0.3107
Epoch 217/300
56 - val_loss: 0.1026 - val_mae: 0.3204
Epoch 218/300
1/1 [============== ] - 0s 34ms/step - loss: 0.0352 - mae: 0.11
57 - val_loss: 0.1115 - val_mae: 0.3339
Epoch 219/300
35 - val_loss: 0.1210 - val_mae: 0.3478
Epoch 220/300
1/1 [============== ] - 0s 37ms/step - loss: 0.0338 - mae: 0.11
49 - val_loss: 0.1274 - val_mae: 0.3569
Epoch 221/300
69 - val_loss: 0.1289 - val_mae: 0.3590
Epoch 222/300
1/1 [============== ] - 0s 43ms/step - loss: 0.0327 - mae: 0.11
56 - val_loss: 0.1273 - val_mae: 0.3568
Epoch 223/300
35 - val_loss: 0.1256 - val_mae: 0.3544
Epoch 224/300
1/1 [============== ] - 0s 47ms/step - loss: 0.0317 - mae: 0.11
25 - val_loss: 0.1256 - val_mae: 0.3544
Epoch 225/300
1/1 [============== ] - 0s 39ms/step - loss: 0.0311 - mae: 0.11
15 - val_loss: 0.1262 - val_mae: 0.3552
Epoch 226/300
1/1 [============= ] - 0s 38ms/step - loss: 0.0306 - mae: 0.11
23 - val_loss: 0.1245 - val_mae: 0.3529
Epoch 227/300
1/1 [============== ] - 0s 47ms/step - loss: 0.0302 - mae: 0.11
17 - val loss: 0.1191 - val mae: 0.3452
Epoch 228/300
1/1 [===========] - 0s 42ms/step - loss: 0.0295 - mae: 0.10
91 - val loss: 0.1128 - val mae: 0.3359
Epoch 229/300
1/1 [============= ] - 0s 37ms/step - loss: 0.0291 - mae: 0.10
59 - val loss: 0.1091 - val mae: 0.3303
Epoch 230/300
50 - val loss: 0.1090 - val mae: 0.3302
Epoch 231/300
1/1 [============== ] - 0s 44ms/step - loss: 0.0281 - mae: 0.10
47 - val_loss: 0.1103 - val_mae: 0.3321
Epoch 232/300
1/1 [============= ] - 0s 45ms/step - loss: 0.0276 - mae: 0.10
42 - val_loss: 0.1121 - val_mae: 0.3349
Epoch 233/300
1/1 [=============== ] - 0s 40ms/step - loss: 0.0270 - mae: 0.10
```

```
31 - val_loss: 0.1132 - val_mae: 0.3364
Epoch 234/300
1/1 [============ ] - 0s 39ms/step - loss: 0.0264 - mae: 0.10
33 - val_loss: 0.1135 - val_mae: 0.3368
Epoch 235/300
1/1 [============ ] - 0s 39ms/step - loss: 0.0259 - mae: 0.10
36 - val_loss: 0.1143 - val_mae: 0.3380
Epoch 236/300
39 - val_loss: 0.1151 - val_mae: 0.3392
Epoch 237/300
1/1 [============ ] - 0s 42ms/step - loss: 0.0251 - mae: 0.10
42 - val_loss: 0.1184 - val_mae: 0.3441
Epoch 238/300
1/1 [============= ] - 0s 40ms/step - loss: 0.0246 - mae: 0.10
43 - val_loss: 0.1233 - val_mae: 0.3511
Epoch 239/300
1/1 [============ ] - 0s 65ms/step - loss: 0.0242 - mae: 0.10
40 - val_loss: 0.1281 - val_mae: 0.3579
Epoch 240/300
26 - val_loss: 0.1298 - val_mae: 0.3603
Epoch 241/300
1/1 [============== ] - 0s 46ms/step - loss: 0.0234 - mae: 0.10
19 - val_loss: 0.1275 - val_mae: 0.3571
Epoch 242/300
13 - val_loss: 0.1234 - val_mae: 0.3513
Epoch 243/300
1/1 [============== ] - 0s 51ms/step - loss: 0.0225 - mae: 0.10
06 - val_loss: 0.1189 - val_mae: 0.3449
Epoch 244/300
94 - val_loss: 0.1189 - val_mae: 0.3448
Epoch 245/300
1/1 [============== ] - 0s 48ms/step - loss: 0.0218 - mae: 0.09
88 - val_loss: 0.1217 - val_mae: 0.3489
Epoch 246/300
75 - val_loss: 0.1245 - val_mae: 0.3529
Epoch 247/300
1/1 [============== ] - 0s 46ms/step - loss: 0.0212 - mae: 0.09
56 - val_loss: 0.1239 - val_mae: 0.3520
Epoch 248/300
1/1 [============== ] - 0s 45ms/step - loss: 0.0208 - mae: 0.09
51 - val_loss: 0.1215 - val_mae: 0.3486
Epoch 249/300
1/1 [============= ] - 0s 45ms/step - loss: 0.0204 - mae: 0.09
53 - val_loss: 0.1199 - val_mae: 0.3462
Epoch 250/300
1/1 [============= ] - 0s 40ms/step - loss: 0.0203 - mae: 0.09
43 - val loss: 0.1238 - val mae: 0.3518
Epoch 251/300
1/1 [============= ] - 0s 38ms/step - loss: 0.0199 - mae: 0.09
25 - val loss: 0.1293 - val mae: 0.3595
Epoch 252/300
97 - val loss: 0.1319 - val mae: 0.3632
Epoch 253/300
73 - val loss: 0.1299 - val mae: 0.3604
Epoch 254/300
1/1 [============= ] - 0s 40ms/step - loss: 0.0191 - mae: 0.08
71 - val_loss: 0.1257 - val_mae: 0.3546
Epoch 255/300
1/1 [============ ] - 0s 39ms/step - loss: 0.0191 - mae: 0.08
91 - val loss: 0.1274 - val mae: 0.3569
Epoch 256/300
1/1 [============== ] - 0s 37ms/step - loss: 0.0187 - mae: 0.08
```

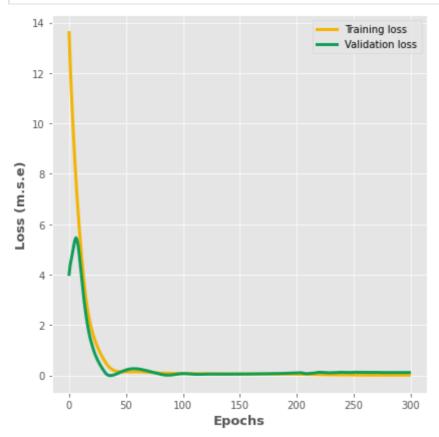
```
79 - val_loss: 0.1316 - val_mae: 0.3628
Epoch 257/300
1/1 [============ ] - 0s 43ms/step - loss: 0.0186 - mae: 0.08
49 - val_loss: 0.1317 - val_mae: 0.3628
Epoch 258/300
1/1 [============ ] - 0s 64ms/step - loss: 0.0186 - mae: 0.08
44 - val_loss: 0.1270 - val_mae: 0.3564
Epoch 259/300
1/1 [============== ] - 0s 35ms/step - loss: 0.0182 - mae: 0.08
64 - val_loss: 0.1236 - val_mae: 0.3515
Epoch 260/300
1/1 [============ ] - 0s 37ms/step - loss: 0.0183 - mae: 0.08
89 - val_loss: 0.1265 - val_mae: 0.3556
Epoch 261/300
1/1 [============= ] - 0s 41ms/step - loss: 0.0180 - mae: 0.08
59 - val_loss: 0.1298 - val_mae: 0.3603
Epoch 262/300
1/1 [=========== ] - 0s 43ms/step - loss: 0.0180 - mae: 0.08
33 - val_loss: 0.1288 - val_mae: 0.3589
Epoch 263/300
37 - val_loss: 0.1239 - val_mae: 0.3520
Epoch 264/300
1/1 [============== ] - 0s 42ms/step - loss: 0.0177 - mae: 0.08
76 - val_loss: 0.1248 - val_mae: 0.3533
Epoch 265/300
59 - val_loss: 0.1294 - val_mae: 0.3597
Epoch 266/300
1/1 [============ ] - 0s 37ms/step - loss: 0.0174 - mae: 0.08
21 - val_loss: 0.1298 - val_mae: 0.3602
Epoch 267/300
10 - val_loss: 0.1252 - val_mae: 0.3538
Epoch 268/300
1/1 [============== ] - 0s 38ms/step - loss: 0.0171 - mae: 0.08
39 - val_loss: 0.1227 - val_mae: 0.3503
Epoch 269/300
48 - val_loss: 0.1255 - val_mae: 0.3542
Epoch 270/300
1/1 [============== ] - 0s 38ms/step - loss: 0.0168 - mae: 0.08
17 - val_loss: 0.1262 - val_mae: 0.3552
Epoch 271/300
1/1 [============== ] - 0s 36ms/step - loss: 0.0168 - mae: 0.08
03 - val_loss: 0.1237 - val_mae: 0.3517
Epoch 272/300
1/1 [============= ] - 0s 41ms/step - loss: 0.0166 - mae: 0.08
12 - val_loss: 0.1203 - val_mae: 0.3468
Epoch 273/300
1/1 [============ ] - 0s 38ms/step - loss: 0.0166 - mae: 0.08
29 - val loss: 0.1222 - val mae: 0.3496
Epoch 274/300
1/1 [===========] - 0s 38ms/step - loss: 0.0164 - mae: 0.08
12 - val loss: 0.1240 - val mae: 0.3522
Epoch 275/300
97 - val loss: 0.1230 - val mae: 0.3507
Epoch 276/300
00 - val loss: 0.1202 - val mae: 0.3467
Epoch 277/300
1/1 [============ ] - 0s 37ms/step - loss: 0.0162 - mae: 0.08
13 - val_loss: 0.1185 - val_mae: 0.3442
Epoch 278/300
1/1 [============] - 0s 49ms/step - loss: 0.0161 - mae: 0.08
17 - val loss: 0.1198 - val mae: 0.3461
Epoch 279/300
1/1 [============== ] - 0s 46ms/step - loss: 0.0160 - mae: 0.08
```

```
02 - val_loss: 0.1198 - val_mae: 0.3461
Epoch 280/300
1/1 [============= ] - 0s 47ms/step - loss: 0.0160 - mae: 0.07
94 - val_loss: 0.1189 - val_mae: 0.3448
Epoch 281/300
92 - val_loss: 0.1164 - val_mae: 0.3412
Epoch 282/300
1/1 [============ ] - 0s 39ms/step - loss: 0.0158 - mae: 0.08
02 - val_loss: 0.1170 - val_mae: 0.3421
Epoch 283/300
1/1 [============ ] - 0s 38ms/step - loss: 0.0157 - mae: 0.07
93 - val_loss: 0.1190 - val_mae: 0.3450
Epoch 284/300
1/1 [============= ] - 0s 38ms/step - loss: 0.0157 - mae: 0.07
77 - val_loss: 0.1197 - val_mae: 0.3460
Epoch 285/300
1/1 [===========] - 0s 40ms/step - loss: 0.0156 - mae: 0.07
68 - val_loss: 0.1183 - val_mae: 0.3440
Epoch 286/300
76 - val_loss: 0.1173 - val_mae: 0.3425
Epoch 287/300
1/1 [============== ] - 0s 40ms/step - loss: 0.0155 - mae: 0.07
80 - val_loss: 0.1193 - val_mae: 0.3454
Epoch 288/300
63 - val_loss: 0.1200 - val_mae: 0.3464
Epoch 289/300
1/1 [=============== ] - 0s 40ms/step - loss: 0.0154 - mae: 0.07
54 - val_loss: 0.1181 - val_mae: 0.3436
Epoch 290/300
61 - val_loss: 0.1178 - val_mae: 0.3432
Epoch 291/300
1/1 [============== ] - 0s 37ms/step - loss: 0.0153 - mae: 0.07
58 - val_loss: 0.1197 - val_mae: 0.3460
Epoch 292/300
1/1 [============== ] - 0s 38ms/step - loss: 0.0152 - mae: 0.07
42 - val_loss: 0.1196 - val_mae: 0.3458
Epoch 293/300
1/1 [============== ] - 0s 41ms/step - loss: 0.0152 - mae: 0.07
38 - val_loss: 0.1181 - val_mae: 0.3437
Epoch 294/300
1/1 [============== ] - 0s 38ms/step - loss: 0.0151 - mae: 0.07
43 - val_loss: 0.1190 - val_mae: 0.3450
Epoch 295/300
1/1 [============= ] - 0s 43ms/step - loss: 0.0151 - mae: 0.07
35 - val_loss: 0.1204 - val_mae: 0.3470
Epoch 296/300
1/1 [============= ] - 0s 40ms/step - loss: 0.0150 - mae: 0.07
23 - val loss: 0.1196 - val mae: 0.3458
Epoch 297/300
1/1 [===========] - 0s 39ms/step - loss: 0.0150 - mae: 0.07
27 - val loss: 0.1192 - val mae: 0.3452
Epoch 298/300
1/1 [============= ] - 0s 38ms/step - loss: 0.0149 - mae: 0.07
29 - val loss: 0.1206 - val mae: 0.3473
Epoch 299/300
18 - val_loss: 0.1211 - val_mae: 0.3480
Epoch 300/300
1/1 [============= ] - 0s 36ms/step - loss: 0.0149 - mae: 0.07
14 - val_loss: 0.1201 - val_mae: 0.3465
model history = d.DataFrame(history.history)
model_history['epoch'] = history.epoch
fig, ax = m.subplots(figsize=(6,6))
```

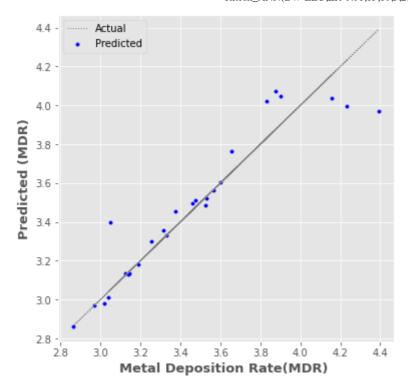
num_epochs = model_history.shape[0]

In [91]:

```
ax.plot(n.arange(0, num_epochs), model_history["loss"], label="Training loss"
ax.plot(n.arange(0, num_epochs), model_history["val_loss"], label="Validation
m.xlabel('Epochs',fontsize=13,fontweight='bold')
m.ylabel('Loss (m.s.e)',fontsize=13,fontweight='bold')
#m.title('Loss Curve')
m.tight_layout()
m.legend()
m.savefig('Losscurve_MDR2.jpg',dpi=500)
m.show()
```



```
In [92]: test_pred1 = model.predict(X).flatten()
    m.figure(figsize=(6, 6))
    m.scatter(Y,test_pred1,label='Predicted',s=11,color='blue')
    m.xlabel('Metal Deposition Rate(MDR) ',fontsize=13,fontweight='bold')
    m.ylabel('Predicted (MDR)',fontsize=13,fontweight='bold')
    #m.title('Ra(Actual vs predicted)keras-ANN Model')
    m.plot(Y,Y,label='Actual',linestyle='dotted',linewidth=1,color='grey')
    m.legend()
    m.savefig('MDR_ANN2.jpg',dpi=250)
    m.show()
```



In [93]: df[

df['pred_ANN']=test_pred1
df

Out		
Out	ノリ	

3]:		٧	1	ws	NPD	G	BW	RH	Р	%D	Metal deposition (Kg/hr)	pred_ANN
_	0	25	200	5.5	18	20	7.20	3.52	2.38	35.73837	3.019104	2.979494
	1	27	200	5.5	18	18	9.37	3.77	1.99	35.75795	3.329568	3.332186
	2	25	220	5.5	18	18	8.55	3.54	2.62	35.71841	3.529152	3.523635
	3	27	220	5.5	18	20	8.47	3.81	3.54	41.70224	3.461040	3.498120
	4	25	200	6.5	18	18	7.74	3.06	1.57	29.12951	3.124368	3.133039
	5	27	200	6.5	18	20	8.72	3.64	2.08	29.51183	3.568032	3.564787
	6	25	220	6.5	18	20	6.47	3.35	2.48	35.49750	3.143088	3.137196
	7	27	220	6.5	18	18	8.48	3.00	3.20	38.04692	3.657888	3.764115
	8	25	200	5.5	20	18	7.24	3.16	1.62	29.28069	2.865456	2.861983
	9	27	200	5.5	20	20	7.45	3.58	1.90	33.88926	3.139488	3.131815
	10	25	220	5.5	20	20	9.29	3.61	2.14	29.00406	3.602016	3.602499
	11	27	220	5.5	20	18	9.09	3.77	2.08	28.78465	4.232448	3.995369
	12	25	200	6.5	20	20	6.55	3.35	1.85	26.98541	3.373344	3.453575
	13	27	200	6.5	20	18	7.10	3.12	2.02	27.67347	3.317184	3.356362
	14	25	220	6.5	20	18	7.47	3.16	2.18	35.86731	3.474432	3.510093
	15	27	220	6.5	20	20	8.55	3.04	2.20	33.66211	3.903120	4.045284
	16	24	210	6.0	19	19	7.27	3.44	1.58	26.03336	3.525120	3.486424
	17	28	210	6.0	19	19	10.31	3.54	3.07	38.41229	4.155840	4.039875
	18	26	190	6.0	19	19	7.51	3.08	1.62	28.80259	3.041280	3.011667
	19	26	230	6.0	19	19	8.05	3.47	2.28	33.11475	3.877632	4.075252
	20	26	210	5.0	19	19	7.79	4.04	3.00	39.37282	3.257280	3.301646

```
Metal deposition
                   I WS NPD
                               G
                                   BW
                                         RH
                                               Р
                                                      %D
                                                                               pred_ANN
                                                                       (Kg/hr)
          21 26
                 210
                      7.0
                           19
                               19
                                   7.48
                                       3.56 2.68
                                                  38.37012
                                                                      4.390848
                                                                                3.971193
          22 26 210
                     6.0
                           17
                               19
                                   8.91
                                        3.01 2.55 38.73842
                                                                      2.970432
                                                                                2.971028
          23 26
                 210
                     6.0
                           21
                               19
                                   9.30
                                        3.18
                                             1.50 29.08800
                                                                      3.829248
                                                                                4.021616
          24 26
                 210
                     6.0
                               17
                                   8.20
                                       3.06
                                             2.31 35.05808
                                                                      3.188160
                                                                                3.179650
                           19
                                   8.28 3.21 2.40 37.23329
                                                                      3.049920
                                                                               3.396458
          25 26 210
                     6.0
                           19
                               21
          from sklearn.metrics import r2 score
In [21]:
          r2 = r2_score(df['BW'], df['pred_ANN'])
          print('r2 score for ANN model is', r2)
         r2 score for ANN model is -2.0816969291254273
          df['error_percent']=((df['pred_ANN']-df['Metal deposition (Kg/hr)'])/df['Metal
In [94]:
          print("The mean percentage error(absolute) in P is:", abs(df['error_percent']
         The mean percentage error(absolute) in P is: 2.224520560043755
         CROSS VALIDATION.
          from sklearn.model selection import KFold
In [95]:
          import statistics
          k_fold = KFold(n_splits = 26, random_state = 42, shuffle=True)
In [96]:
                             #for validation-data only..!!
In [97]:
          mae eachfold=[]
          for training_index, testing_index in k_fold.split(X):
              X_train, X_test = X[training_index,:], X[testing_index,:]
              Y_train, Y_test = Y.iloc[training_index] , Y.iloc[testing_index]
              model = keras.Sequential([
              layers.Dense(15, activation='elu', input shape=[X.shape[1]]),
              #layers.Dropout(0.1, seed=2),
              layers.Dense(10, activation='elu'),
              layers.Dense(5, activation='elu'),
              layers.Dense(2, activation='elu'),
              layers.Dense(1,)
              optimizer = tf.keras.optimizers.Adam(learning_rate=0.01)
              model.compile(loss=tf.keras.losses.MeanSquaredError(),optimizer=optimizer
              model.fit(X train,Y train,epochs=250,validation data=(X test,Y test))
              curr prediction=model.predict(X test)
              curr_mae=mean_absolute_error(Y_test,curr_prediction)
              mae eachfold.append(curr mae)
          print("AFter Cross Validation",'\n')
          print("mean of means is",sum(mae_eachfold) / len(mae_eachfold),"and standard
                statistics.pstdev(mae_eachfold))
         Epoch 1/250
```

```
5620 - val_loss: 8.8558 - val_mae: 2.9759
Epoch 2/250
987 - val_loss: 8.6088 - val_mae: 2.9341
Epoch 3/250
418 - val_loss: 8.3724 - val_mae: 2.8935
Epoch 4/250
1/1 [============== ] - 0s 47ms/step - loss: 11.6363 - mae: 3.3
882 - val_loss: 8.1459 - val_mae: 2.8541
Epoch 5/250
360 - val_loss: 7.9264 - val_mae: 2.8154
Epoch 6/250
1/1 [============= ] - 0s 35ms/step - loss: 10.9354 - mae: 3.2
830 - val_loss: 7.7071 - val_mae: 2.7762
Epoch 7/250
1/1 [============ ] - 0s 50ms/step - loss: 10.5776 - mae: 3.2
281 - val_loss: 7.4796 - val_mae: 2.7349
Epoch 8/250
703 - val_loss: 7.2363 - val_mae: 2.6900
Epoch 9/250
1/1 [============== ] - 0s 46ms/step - loss: 9.8187 - mae: 3.10
88 - val_loss: 6.9722 - val_mae: 2.6405
Epoch 10/250
1/1 [============] - 0s 38ms/step - loss: 9.4113 - mae: 3.04
29 - val_loss: 6.6835 - val_mae: 2.5852
Epoch 11/250
1/1 [============== ] - 0s 64ms/step - loss: 8.9837 - mae: 2.97
22 - val_loss: 6.3655 - val_mae: 2.5230
Epoch 12/250
63 - val_loss: 6.0135 - val_mae: 2.4522
Epoch 13/250
1/1 [============== ] - 0s 52ms/step - loss: 8.0676 - mae: 2.81
45 - val_loss: 5.6238 - val_mae: 2.3715
Epoch 14/250
60 - val_loss: 5.1937 - val_mae: 2.2790
Epoch 15/250
1/1 [============== ] - 0s 51ms/step - loss: 7.0700 - mae: 2.63
00 - val_loss: 4.7209 - val_mae: 2.1728
Epoch 16/250
1/1 [============== ] - 0s 84ms/step - loss: 6.5447 - mae: 2.52
60 - val_loss: 4.2060 - val_mae: 2.0509
Epoch 17/250
31 - val_loss: 3.6541 - val_mae: 1.9116
Epoch 18/250
05 - val loss: 3.0735 - val mae: 1.7531
Epoch 19/250
1/1 [============= ] - 0s 43ms/step - loss: 4.9160 - mae: 2.15
73 - val loss: 2.4780 - val mae: 1.5742
Epoch 20/250
1/1 [============== ] - 0s 38ms/step - loss: 4.3801 - mae: 2.01
28 - val loss: 1.8894 - val mae: 1.3746
Epoch 21/250
64 - val loss: 1.3360 - val mae: 1.1558
Epoch 22/250
1/1 [============= ] - 0s 42ms/step - loss: 3.3911 - mae: 1.69
84 - val loss: 0.8492 - val mae: 0.9215
Epoch 23/250
1/1 [============ ] - 0s 40ms/step - loss: 2.9706 - mae: 1.55
32 - val loss: 0.4583 - val mae: 0.6770
Epoch 24/250
1/1 [============== ] - 0s 33ms/step - loss: 2.6236 - mae: 1.43
```

```
06 - val_loss: 0.1865 - val_mae: 0.4319
Epoch 25/250
73 - val_loss: 0.0405 - val_mae: 0.2012
Epoch 26/250
91 - val_loss: 2.6445e-05 - val_mae: 0.0051
Epoch 27/250
1/1 [============] - 0s 48ms/step - loss: 2.0774 - mae: 1.23
13 - val_loss: 0.0187 - val_mae: 0.1367
Epoch 28/250
50 - val_loss: 0.0455 - val_mae: 0.2133
Epoch 29/250
91 - val_loss: 0.0506 - val_mae: 0.2249
Epoch 30/250
1/1 [============ ] - 0s 49ms/step - loss: 1.7191 - mae: 1.10
18 - val_loss: 0.0324 - val_mae: 0.1799
Epoch 31/250
38 - val_loss: 0.0083 - val_mae: 0.0913
Epoch 32/250
1/1 [============= ] - 0s 41ms/step - loss: 1.2816 - mae: 0.92
92 - val_loss: 7.1321e-04 - val_mae: 0.0267
Epoch 33/250
1/1 [============] - 0s 48ms/step - loss: 1.0408 - mae: 0.82
72 - val_loss: 0.0258 - val_mae: 0.1607
Epoch 34/250
1/1 [============== ] - 0s 58ms/step - loss: 0.8166 - mae: 0.72
33 - val_loss: 0.0893 - val_mae: 0.2989
Epoch 35/250
12 - val_loss: 0.1864 - val_mae: 0.4317
Epoch 36/250
1/1 [============== ] - 0s 57ms/step - loss: 0.4894 - mae: 0.54
72 - val_loss: 0.3044 - val_mae: 0.5517
Epoch 37/250
95 - val_loss: 0.4267 - val_mae: 0.6532
Epoch 38/250
1/1 [============== ] - 0s 50ms/step - loss: 0.3769 - mae: 0.46
63 - val_loss: 0.5366 - val_mae: 0.7325
Epoch 39/250
1/1 [============== ] - 0s 40ms/step - loss: 0.3946 - mae: 0.50
04 - val_loss: 0.6198 - val_mae: 0.7873
Epoch 40/250
1/1 [============= ] - 0s 54ms/step - loss: 0.4411 - mae: 0.55
45 - val_loss: 0.6677 - val_mae: 0.8171
Epoch 41/250
1/1 [============= ] - 0s 53ms/step - loss: 0.4914 - mae: 0.60
28 - val loss: 0.6774 - val mae: 0.8230
Epoch 42/250
67 - val loss: 0.6511 - val mae: 0.8069
Epoch 43/250
69 - val loss: 0.5948 - val mae: 0.7712
Epoch 44/250
62 - val loss: 0.5168 - val mae: 0.7189
Epoch 45/250
1/1 [============ ] - 0s 53ms/step - loss: 0.4401 - mae: 0.56
87 - val_loss: 0.4261 - val_mae: 0.6527
Epoch 46/250
1/1 [============== ] - 0s 56ms/step - loss: 0.3781 - mae: 0.51
87 - val loss: 0.3317 - val mae: 0.5759
Epoch 47/250
1/1 [============== ] - 0s 44ms/step - loss: 0.3177 - mae: 0.46
```

```
05 - val_loss: 0.2418 - val_mae: 0.4917
Epoch 48/250
23 - val_loss: 0.1629 - val_mae: 0.4036
Epoch 49/250
1/1 [============= ] - 0s 40ms/step - loss: 0.2312 - mae: 0.35
91 - val_loss: 0.0995 - val_mae: 0.3154
Epoch 50/250
1/1 [============ ] - 0s 37ms/step - loss: 0.2103 - mae: 0.33
62 - val_loss: 0.0533 - val_mae: 0.2309
Epoch 51/250
29 - val_loss: 0.0236 - val_mae: 0.1535
Epoch 52/250
1/1 [============= ] - 0s 35ms/step - loss: 0.2025 - mae: 0.31
41 - val_loss: 0.0075 - val_mae: 0.0864
Epoch 53/250
81 - val_loss: 0.0010 - val_mae: 0.0317
Epoch 54/250
1/1 [============= ] - 0s 39ms/step - loss: 0.2104 - mae: 0.32
41 - val_loss: 8.6406e-05 - val_mae: 0.0093
Epoch 55/250
65 - val_loss: 0.0013 - val_mae: 0.0366
Epoch 56/250
1/1 [============] - 0s 36ms/step - loss: 0.2069 - mae: 0.32
44 - val_loss: 0.0026 - val_mae: 0.0514
Epoch 57/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1988 - mae: 0.31
70 - val_loss: 0.0031 - val_mae: 0.0553
Epoch 58/250
54 - val_loss: 0.0026 - val_mae: 0.0510
Epoch 59/250
1/1 [============== ] - 0s 42ms/step - loss: 0.1763 - mae: 0.29
28 - val_loss: 0.0017 - val_mae: 0.0411
Epoch 60/250
1/1 [============== ] - 0s 36ms/step - loss: 0.1652 - mae: 0.28
16 - val_loss: 8.1853e-04 - val_mae: 0.0286
Epoch 61/250
1/1 [============== ] - 0s 38ms/step - loss: 0.1558 - mae: 0.27
37 - val_loss: 2.5533e-04 - val_mae: 0.0160
Epoch 62/250
82 - val_loss: 2.9768e-05 - val_mae: 0.0055
Epoch 63/250
46 - val_loss: 1.4652e-06 - val_mae: 0.0012
Epoch 64/250
43 - val loss: 7.8093e-06 - val mae: 0.0028
Epoch 65/250
1/1 [============ ] - 0s 37ms/step - loss: 0.1369 - mae: 0.26
31 - val loss: 1.9533e-06 - val mae: 0.0014
Epoch 66/250
13 - val loss: 1.3324e-04 - val mae: 0.0115
Epoch 67/250
16 - val loss: 7.4661e-04 - val mae: 0.0273
Epoch 68/250
1/1 [============= ] - 0s 43ms/step - loss: 0.1287 - mae: 0.26
23 - val loss: 0.0023 - val mae: 0.0480
Epoch 69/250
1/1 [============ ] - 0s 37ms/step - loss: 0.1254 - mae: 0.26
10 - val loss: 0.0052 - val mae: 0.0724
Epoch 70/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1222 - mae: 0.25
```

```
90 - val_loss: 0.0099 - val_mae: 0.0993
Epoch 71/250
78 - val_loss: 0.0161 - val_mae: 0.1269
Epoch 72/250
63 - val_loss: 0.0236 - val_mae: 0.1537
Epoch 73/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1151 - mae: 0.25
43 - val_loss: 0.0317 - val_mae: 0.1780
Epoch 74/250
50 - val_loss: 0.0394 - val_mae: 0.1985
Epoch 75/250
1/1 [============= ] - 0s 61ms/step - loss: 0.1129 - mae: 0.25
70 - val_loss: 0.0458 - val_mae: 0.2140
Epoch 76/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1121 - mae: 0.25
78 - val_loss: 0.0501 - val_mae: 0.2238
Epoch 77/250
70 - val_loss: 0.0518 - val_mae: 0.2276
Epoch 78/250
1/1 [============= ] - 0s 35ms/step - loss: 0.1093 - mae: 0.25
50 - val_loss: 0.0509 - val_mae: 0.2257
Epoch 79/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1071 - mae: 0.25
17 - val_loss: 0.0479 - val_mae: 0.2188
Epoch 80/250
1/1 [============== ] - 0s 34ms/step - loss: 0.1046 - mae: 0.24
73 - val_loss: 0.0432 - val_mae: 0.2079
Epoch 81/250
20 - val_loss: 0.0378 - val_mae: 0.1943
Epoch 82/250
1/1 [============] - 0s 38ms/step - loss: 0.0993 - mae: 0.23
60 - val_loss: 0.0323 - val_mae: 0.1796
Epoch 83/250
96 - val_loss: 0.0273 - val_mae: 0.1652
Epoch 84/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0951 - mae: 0.22
47 - val_loss: 0.0233 - val_mae: 0.1525
Epoch 85/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0936 - mae: 0.22
14 - val_loss: 0.0203 - val_mae: 0.1426
Epoch 86/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0924 - mae: 0.21
81 - val_loss: 0.0186 - val_mae: 0.1364
Epoch 87/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0914 - mae: 0.21
54 - val loss: 0.0181 - val mae: 0.1345
Epoch 88/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0903 - mae: 0.21
33 - val loss: 0.0188 - val mae: 0.1371
Epoch 89/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0891 - mae: 0.21
09 - val loss: 0.0208 - val mae: 0.1441
Epoch 90/250
81 - val loss: 0.0241 - val mae: 0.1551
Epoch 91/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0859 - mae: 0.20
48 - val loss: 0.0287 - val mae: 0.1696
Epoch 92/250
1/1 [============ ] - 0s 45ms/step - loss: 0.0841 - mae: 0.20
11 - val loss: 0.0348 - val mae: 0.1866
Epoch 93/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0822 - mae: 0.19
```

```
70 - val_loss: 0.0422 - val_mae: 0.2053
Epoch 94/250
27 - val_loss: 0.0505 - val_mae: 0.2248
Epoch 95/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0788 - mae: 0.19
06 - val_loss: 0.0597 - val_mae: 0.2442
Epoch 96/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0773 - mae: 0.18
89 - val_loss: 0.0691 - val_mae: 0.2628
Epoch 97/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0759 - mae: 0.18
79 - val_loss: 0.0784 - val_mae: 0.2799
Epoch 98/250
69 - val_loss: 0.0872 - val_mae: 0.2953
Epoch 99/250
1/1 [=========== ] - 0s 33ms/step - loss: 0.0734 - mae: 0.18
57 - val_loss: 0.0953 - val_mae: 0.3087
Epoch 100/250
42 - val_loss: 0.1026 - val_mae: 0.3203
Epoch 101/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0709 - mae: 0.18
26 - val_loss: 0.1090 - val_mae: 0.3302
Epoch 102/250
14 - val_loss: 0.1149 - val_mae: 0.3389
Epoch 103/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0685 - mae: 0.17
99 - val_loss: 0.1203 - val_mae: 0.3468
Epoch 104/250
83 - val_loss: 0.1256 - val_mae: 0.3544
Epoch 105/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0662 - mae: 0.17
64 - val_loss: 0.1312 - val_mae: 0.3622
Epoch 106/250
43 - val_loss: 0.1371 - val_mae: 0.3703
Epoch 107/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0640 - mae: 0.17
21 - val_loss: 0.1438 - val_mae: 0.3792
Epoch 108/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0629 - mae: 0.16
97 - val_loss: 0.1512 - val_mae: 0.3889
Epoch 109/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0618 - mae: 0.16
72 - val_loss: 0.1595 - val_mae: 0.3994
Epoch 110/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0608 - mae: 0.16
47 - val loss: 0.1686 - val mae: 0.4106
Epoch 111/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0598 - mae: 0.16
21 - val loss: 0.1783 - val mae: 0.4222
Epoch 112/250
01 - val loss: 0.1885 - val mae: 0.4341
Epoch 113/250
83 - val loss: 0.1989 - val mae: 0.4460
Epoch 114/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0569 - mae: 0.15
69 - val_loss: 0.2093 - val_mae: 0.4575
Epoch 115/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0561 - mae: 0.15
60 - val loss: 0.2195 - val mae: 0.4685
Epoch 116/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0552 - mae: 0.15
```

```
52 - val_loss: 0.2293 - val_mae: 0.4788
Epoch 117/250
1/1 [============= ] - 0s 51ms/step - loss: 0.0544 - mae: 0.15
42 - val_loss: 0.2385 - val_mae: 0.4884
Epoch 118/250
1/1 [============= ] - 0s 47ms/step - loss: 0.0536 - mae: 0.15
30 - val_loss: 0.2472 - val_mae: 0.4972
Epoch 119/250
17 - val_loss: 0.2553 - val_mae: 0.5053
Epoch 120/250
1/1 [============ ] - 0s 49ms/step - loss: 0.0520 - mae: 0.15
04 - val_loss: 0.2629 - val_mae: 0.5127
Epoch 121/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0512 - mae: 0.14
91 - val_loss: 0.2700 - val_mae: 0.5196
Epoch 122/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0505 - mae: 0.14
84 - val_loss: 0.2768 - val_mae: 0.5261
Epoch 123/250
80 - val_loss: 0.2833 - val_mae: 0.5323
Epoch 124/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0490 - mae: 0.14
75 - val_loss: 0.2896 - val_mae: 0.5382
Epoch 125/250
69 - val_loss: 0.2957 - val_mae: 0.5438
Epoch 126/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0477 - mae: 0.14
62 - val_loss: 0.3014 - val_mae: 0.5490
Epoch 127/250
53 - val_loss: 0.3067 - val_mae: 0.5538
Epoch 128/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0463 - mae: 0.14
43 - val_loss: 0.3115 - val_mae: 0.5581
Epoch 129/250
32 - val_loss: 0.3156 - val_mae: 0.5618
Epoch 130/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0451 - mae: 0.14
21 - val_loss: 0.3190 - val_mae: 0.5648
Epoch 131/250
1/1 [============== ] - 0s 67ms/step - loss: 0.0445 - mae: 0.14
10 - val_loss: 0.3215 - val_mae: 0.5670
Epoch 132/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0439 - mae: 0.14
00 - val_loss: 0.3233 - val_mae: 0.5686
Epoch 133/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0433 - mae: 0.13
95 - val loss: 0.3242 - val mae: 0.5694
Epoch 134/250
1/1 [===========] - 0s 39ms/step - loss: 0.0427 - mae: 0.13
89 - val loss: 0.3245 - val mae: 0.5697
Epoch 135/250
81 - val loss: 0.3243 - val mae: 0.5695
Epoch 136/250
73 - val loss: 0.3237 - val mae: 0.5689
Epoch 137/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0410 - mae: 0.13
65 - val_loss: 0.3228 - val_mae: 0.5682
Epoch 138/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0404 - mae: 0.13
56 - val loss: 0.3219 - val mae: 0.5673
Epoch 139/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0399 - mae: 0.13
```

```
48 - val_loss: 0.3209 - val_mae: 0.5665
Epoch 140/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0393 - mae: 0.13
39 - val_loss: 0.3201 - val_mae: 0.5658
Epoch 141/250
1/1 [============ ] - 0s 46ms/step - loss: 0.0388 - mae: 0.13
30 - val_loss: 0.3193 - val_mae: 0.5651
Epoch 142/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0383 - mae: 0.13
21 - val_loss: 0.3186 - val_mae: 0.5644
Epoch 143/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0377 - mae: 0.13
12 - val_loss: 0.3178 - val_mae: 0.5637
Epoch 144/250
03 - val_loss: 0.3169 - val_mae: 0.5629
Epoch 145/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0367 - mae: 0.12
94 - val_loss: 0.3157 - val_mae: 0.5619
Epoch 146/250
86 - val_loss: 0.3142 - val_mae: 0.5606
Epoch 147/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0357 - mae: 0.12
77 - val_loss: 0.3124 - val_mae: 0.5589
Epoch 148/250
68 - val_loss: 0.3101 - val_mae: 0.5569
Epoch 149/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0346 - mae: 0.12
59 - val_loss: 0.3074 - val_mae: 0.5544
Epoch 150/250
49 - val_loss: 0.3044 - val_mae: 0.5517
Epoch 151/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0336 - mae: 0.12
39 - val_loss: 0.3011 - val_mae: 0.5487
Epoch 152/250
29 - val_loss: 0.2976 - val_mae: 0.5455
Epoch 153/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0326 - mae: 0.12
18 - val_loss: 0.2941 - val_mae: 0.5423
Epoch 154/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0321 - mae: 0.12
06 - val_loss: 0.2906 - val_mae: 0.5391
Epoch 155/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0315 - mae: 0.11
95 - val_loss: 0.2872 - val_mae: 0.5359
Epoch 156/250
1/1 [============] - 0s 36ms/step - loss: 0.0310 - mae: 0.11
83 - val loss: 0.2839 - val mae: 0.5329
Epoch 157/250
1/1 [===========] - 0s 37ms/step - loss: 0.0305 - mae: 0.11
70 - val loss: 0.2809 - val mae: 0.5300
Epoch 158/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0300 - mae: 0.11
58 - val loss: 0.2780 - val mae: 0.5272
Epoch 159/250
45 - val loss: 0.2752 - val mae: 0.5246
Epoch 160/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0289 - mae: 0.11
31 - val_loss: 0.2726 - val_mae: 0.5222
Epoch 161/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0284 - mae: 0.11
18 - val loss: 0.2701 - val mae: 0.5197
Epoch 162/250
1/1 [=============== ] - 0s 38ms/step - loss: 0.0279 - mae: 0.11
```

```
04 - val_loss: 0.2677 - val_mae: 0.5174
Epoch 163/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0274 - mae: 0.10
90 - val_loss: 0.2653 - val_mae: 0.5151
Epoch 164/250
76 - val_loss: 0.2630 - val_mae: 0.5128
Epoch 165/250
62 - val_loss: 0.2607 - val_mae: 0.5106
Epoch 166/250
47 - val_loss: 0.2584 - val_mae: 0.5083
Epoch 167/250
1/1 [============= ] - 0s 55ms/step - loss: 0.0253 - mae: 0.10
33 - val_loss: 0.2562 - val_mae: 0.5061
Epoch 168/250
1/1 [===========] - 0s 59ms/step - loss: 0.0248 - mae: 0.10
19 - val_loss: 0.2540 - val_mae: 0.5040
Epoch 169/250
06 - val_loss: 0.2518 - val_mae: 0.5018
Epoch 170/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0238 - mae: 0.09
92 - val_loss: 0.2498 - val_mae: 0.4998
Epoch 171/250
79 - val_loss: 0.2477 - val_mae: 0.4977
Epoch 172/250
66 - val_loss: 0.2457 - val_mae: 0.4957
Epoch 173/250
53 - val_loss: 0.2438 - val_mae: 0.4937
Epoch 174/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0218 - mae: 0.09
40 - val_loss: 0.2419 - val_mae: 0.4918
Epoch 175/250
28 - val_loss: 0.2400 - val_mae: 0.4899
Epoch 176/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0207 - mae: 0.09
17 - val_loss: 0.2381 - val_mae: 0.4880
Epoch 177/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0202 - mae: 0.09
06 - val_loss: 0.2363 - val_mae: 0.4861
Epoch 178/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0197 - mae: 0.08
94 - val_loss: 0.2345 - val_mae: 0.4842
Epoch 179/250
1/1 [============ ] - 0s 42ms/step - loss: 0.0192 - mae: 0.08
82 - val loss: 0.2327 - val mae: 0.4824
Epoch 180/250
1/1 [===========] - 0s 38ms/step - loss: 0.0187 - mae: 0.08
70 - val loss: 0.2310 - val mae: 0.4807
Epoch 181/250
57 - val loss: 0.2294 - val mae: 0.4790
Epoch 182/250
45 - val loss: 0.2278 - val mae: 0.4773
Epoch 183/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0172 - mae: 0.08
34 - val_loss: 0.2263 - val_mae: 0.4757
Epoch 184/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0167 - mae: 0.08
21 - val loss: 0.2247 - val mae: 0.4741
Epoch 185/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0162 - mae: 0.08
```

```
09 - val_loss: 0.2232 - val_mae: 0.4725
Epoch 186/250
96 - val_loss: 0.2218 - val_mae: 0.4709
Epoch 187/250
83 - val_loss: 0.2203 - val_mae: 0.4693
Epoch 188/250
74 - val_loss: 0.2189 - val_mae: 0.4678
Epoch 189/250
66 - val_loss: 0.2175 - val_mae: 0.4663
Epoch 190/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0140 - mae: 0.07
58 - val_loss: 0.2161 - val_mae: 0.4649
Epoch 191/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0136 - mae: 0.07
50 - val_loss: 0.2149 - val_mae: 0.4635
Epoch 192/250
42 - val_loss: 0.2137 - val_mae: 0.4622
Epoch 193/250
1/1 [=============== ] - 0s 40ms/step - loss: 0.0128 - mae: 0.07
35 - val_loss: 0.2125 - val_mae: 0.4610
Epoch 194/250
28 - val_loss: 0.2115 - val_mae: 0.4599
Epoch 195/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0121 - mae: 0.07
21 - val_loss: 0.2105 - val_mae: 0.4588
Epoch 196/250
14 - val_loss: 0.2096 - val_mae: 0.4578
Epoch 197/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0115 - mae: 0.07
08 - val_loss: 0.2086 - val_mae: 0.4568
Epoch 198/250
02 - val_loss: 0.2076 - val_mae: 0.4556
Epoch 199/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0110 - mae: 0.06
96 - val_loss: 0.2065 - val_mae: 0.4544
Epoch 200/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0107 - mae: 0.06
90 - val_loss: 0.2053 - val_mae: 0.4530
Epoch 201/250
1/1 [============= ] - 0s 47ms/step - loss: 0.0105 - mae: 0.06
84 - val_loss: 0.2038 - val_mae: 0.4515
Epoch 202/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0102 - mae: 0.06
78 - val loss: 0.2022 - val mae: 0.4497
Epoch 203/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0100 - mae: 0.06
72 - val loss: 0.2004 - val mae: 0.4477
Epoch 204/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0098 - mae: 0.06
68 - val loss: 0.1984 - val mae: 0.4454
Epoch 205/250
64 - val loss: 0.1961 - val mae: 0.4429
Epoch 206/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0094 - mae: 0.06
59 - val loss: 0.1937 - val mae: 0.4401
Epoch 207/250
1/1 [============= ] - 0s 47ms/step - loss: 0.0093 - mae: 0.06
53 - val_loss: 0.1911 - val_mae: 0.4371
Epoch 208/250
1/1 [============== ] - 0s 58ms/step - loss: 0.0091 - mae: 0.06
```

```
47 - val_loss: 0.1883 - val_mae: 0.4339
Epoch 209/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0089 - mae: 0.06
40 - val_loss: 0.1854 - val_mae: 0.4305
Epoch 210/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0087 - mae: 0.06
32 - val_loss: 0.1823 - val_mae: 0.4270
Epoch 211/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0085 - mae: 0.06
25 - val_loss: 0.1793 - val_mae: 0.4234
Epoch 212/250
1/1 [=========== ] - 0s 37ms/step - loss: 0.0083 - mae: 0.06
19 - val_loss: 0.1761 - val_mae: 0.4197
Epoch 213/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0081 - mae: 0.06
12 - val_loss: 0.1730 - val_mae: 0.4159
Epoch 214/250
1/1 [============] - 0s 49ms/step - loss: 0.0080 - mae: 0.06
04 - val_loss: 0.1699 - val_mae: 0.4122
Epoch 215/250
96 - val_loss: 0.1668 - val_mae: 0.4084
Epoch 216/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0076 - mae: 0.05
89 - val_loss: 0.1638 - val_mae: 0.4048
Epoch 217/250
81 - val_loss: 0.1609 - val_mae: 0.4011
Epoch 218/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0073 - mae: 0.05
73 - val_loss: 0.1580 - val_mae: 0.3976
Epoch 219/250
65 - val_loss: 0.1553 - val_mae: 0.3941
Epoch 220/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0070 - mae: 0.05
56 - val_loss: 0.1527 - val_mae: 0.3907
Epoch 221/250
48 - val_loss: 0.1502 - val_mae: 0.3875
Epoch 222/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0067 - mae: 0.05
40 - val_loss: 0.1478 - val_mae: 0.3844
Epoch 223/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0065 - mae: 0.05
33 - val_loss: 0.1455 - val_mae: 0.3815
Epoch 224/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0064 - mae: 0.05
26 - val_loss: 0.1435 - val_mae: 0.3788
Epoch 225/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0062 - mae: 0.05
19 - val loss: 0.1416 - val mae: 0.3762
Epoch 226/250
1/1 [===========] - 0s 45ms/step - loss: 0.0061 - mae: 0.05
12 - val loss: 0.1398 - val mae: 0.3739
Epoch 227/250
05 - val loss: 0.1382 - val mae: 0.3718
Epoch 228/250
98 - val loss: 0.1369 - val mae: 0.3699
Epoch 229/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0057 - mae: 0.04
91 - val_loss: 0.1356 - val_mae: 0.3683
Epoch 230/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0055 - mae: 0.04
84 - val loss: 0.1345 - val mae: 0.3668
Epoch 231/250
1/1 [=============== ] - 0s 40ms/step - loss: 0.0054 - mae: 0.04
```

```
77 - val_loss: 0.1335 - val_mae: 0.3654
Epoch 232/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0053 - mae: 0.04
71 - val_loss: 0.1327 - val_mae: 0.3642
Epoch 233/250
65 - val_loss: 0.1319 - val_mae: 0.3631
Epoch 234/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0050 - mae: 0.04
60 - val_loss: 0.1311 - val_mae: 0.3621
Epoch 235/250
54 - val_loss: 0.1303 - val_mae: 0.3610
Epoch 236/250
50 - val_loss: 0.1296 - val_mae: 0.3600
Epoch 237/250
45 - val_loss: 0.1288 - val_mae: 0.3588
Epoch 238/250
40 - val_loss: 0.1279 - val_mae: 0.3576
Epoch 239/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0045 - mae: 0.04
36 - val_loss: 0.1269 - val_mae: 0.3563
Epoch 240/250
31 - val_loss: 0.1259 - val_mae: 0.3548
Epoch 241/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0043 - mae: 0.04
26 - val_loss: 0.1247 - val_mae: 0.3532
Epoch 242/250
20 - val_loss: 0.1235 - val_mae: 0.3514
Epoch 243/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0041 - mae: 0.04
15 - val_loss: 0.1222 - val_mae: 0.3496
Epoch 244/250
09 - val_loss: 0.1209 - val_mae: 0.3476
Epoch 245/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0039 - mae: 0.04
04 - val_loss: 0.1195 - val_mae: 0.3456
Epoch 246/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0038 - mae: 0.03
98 - val_loss: 0.1180 - val_mae: 0.3436
Epoch 247/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0038 - mae: 0.03
93 - val_loss: 0.1166 - val_mae: 0.3415
Epoch 248/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0037 - mae: 0.03
88 - val loss: 0.1152 - val mae: 0.3394
Epoch 249/250
1/1 [===========] - 0s 37ms/step - loss: 0.0036 - mae: 0.03
83 - val loss: 0.1138 - val mae: 0.3374
Epoch 250/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0035 - mae: 0.03
78 - val loss: 0.1125 - val mae: 0.3355
Epoch 1/250
4333 - val_loss: 12.4203 - val_mae: 3.5242
Epoch 2/250
1/1 [============ ] - 0s 34ms/step - loss: 11.2400 - mae: 3.3
123 - val_loss: 11.4859 - val_mae: 3.3891
Epoch 3/250
1/1 [============] - 0s 38ms/step - loss: 10.4464 - mae: 3.1
977 - val_loss: 10.7213 - val_mae: 3.2743
Epoch 4/250
1/1 [============== ] - 0s 37ms/step - loss: 9.7511 - mae: 3.09
```

```
12 - val_loss: 10.0626 - val_mae: 3.1722
Epoch 5/250
04 - val_loss: 9.4871 - val_mae: 3.0801
Epoch 6/250
41 - val_loss: 8.9780 - val_mae: 2.9963
Epoch 7/250
28 - val_loss: 8.5200 - val_mae: 2.9189
Epoch 8/250
71 - val_loss: 8.0998 - val_mae: 2.8460
Epoch 9/250
1/1 [============ ] - 0s 38ms/step - loss: 7.1193 - mae: 2.63
72 - val_loss: 7.7088 - val_mae: 2.7765
Epoch 10/250
1/1 [============ ] - 0s 41ms/step - loss: 6.7343 - mae: 2.56
33 - val_loss: 7.3423 - val_mae: 2.7097
Epoch 11/250
49 - val loss: 6.9974 - val mae: 2.6453
Epoch 12/250
1/1 [============== ] - 0s 40ms/step - loss: 6.0786 - mae: 2.43
18 - val_loss: 6.6721 - val_mae: 2.5831
Epoch 13/250
34 - val_loss: 6.3652 - val_mae: 2.5229
Epoch 14/250
1/1 [============== ] - 0s 40ms/step - loss: 5.5455 - mae: 2.31
92 - val_loss: 6.0761 - val_mae: 2.4650
Epoch 15/250
88 - val_loss: 5.8049 - val_mae: 2.4093
Epoch 16/250
1/1 [============= ] - 0s 36ms/step - loss: 5.1039 - mae: 2.22
17 - val_loss: 5.5516 - val_mae: 2.3562
Epoch 17/250
75 - val_loss: 5.3162 - val_mae: 2.3057
Epoch 18/250
1/1 [============== ] - 0s 39ms/step - loss: 4.7303 - mae: 2.13
58 - val_loss: 5.0987 - val_mae: 2.2580
Epoch 19/250
1/1 [============== ] - 0s 37ms/step - loss: 4.5642 - mae: 2.09
66 - val_loss: 4.8985 - val_mae: 2.2133
Epoch 20/250
96 - val_loss: 4.7150 - val_mae: 2.1714
Epoch 21/250
1/1 [============= ] - 0s 36ms/step - loss: 4.2679 - mae: 2.02
48 - val loss: 4.5473 - val mae: 2.1324
Epoch 22/250
1/1 [============ ] - 0s 38ms/step - loss: 4.1361 - mae: 1.99
21 - val loss: 4.3942 - val mae: 2.0962
Epoch 23/250
1/1 [============ ] - 0s 53ms/step - loss: 4.0144 - mae: 1.96
14 - val loss: 4.2547 - val mae: 2.0627
Epoch 24/250
27 - val loss: 4.1274 - val mae: 2.0316
Epoch 25/250
1/1 [============ ] - 0s 36ms/step - loss: 3.7988 - mae: 1.90
60 - val loss: 4.0108 - val mae: 2.0027
Epoch 26/250
1/1 [===========] - 0s 37ms/step - loss: 3.7034 - mae: 1.88
10 - val loss: 3.9034 - val mae: 1.9757
Epoch 27/250
1/1 [============== ] - 0s 41ms/step - loss: 3.6151 - mae: 1.85
```

```
75 - val_loss: 3.8039 - val_mae: 1.9504
Epoch 28/250
54 - val_loss: 3.7110 - val_mae: 1.9264
Epoch 29/250
43 - val_loss: 3.6233 - val_mae: 1.9035
Epoch 30/250
40 - val_loss: 3.5398 - val_mae: 1.8814
Epoch 31/250
41 - val_loss: 3.4594 - val_mae: 1.8599
Epoch 32/250
44 - val_loss: 3.3812 - val_mae: 1.8388
Epoch 33/250
1/1 [============] - 0s 38ms/step - loss: 3.1701 - mae: 1.73
45 - val_loss: 3.3044 - val_mae: 1.8178
Epoch 34/250
42 - val_loss: 3.2284 - val_mae: 1.7968
Epoch 35/250
1/1 [============== ] - 0s 38ms/step - loss: 3.0282 - mae: 1.69
33 - val_loss: 3.1525 - val_mae: 1.7755
Epoch 36/250
15 - val_loss: 3.0762 - val_mae: 1.7539
Epoch 37/250
1/1 [============== ] - 0s 40ms/step - loss: 2.8780 - mae: 1.64
86 - val_loss: 2.9988 - val_mae: 1.7317
Epoch 38/250
43 - val_loss: 2.9197 - val_mae: 1.7087
Epoch 39/250
1/1 [============== ] - 0s 37ms/step - loss: 2.7151 - mae: 1.59
85 - val_loss: 2.8382 - val_mae: 1.6847
Epoch 40/250
08 - val_loss: 2.7542 - val_mae: 1.6596
Epoch 41/250
1/1 [============== ] - 0s 42ms/step - loss: 2.5358 - mae: 1.54
13 - val_loss: 2.6678 - val_mae: 1.6333
Epoch 42/250
1/1 [============== ] - 0s 35ms/step - loss: 2.4392 - mae: 1.50
96 - val_loss: 2.5787 - val_mae: 1.6058
Epoch 43/250
54 - val_loss: 2.4863 - val_mae: 1.5768
Epoch 44/250
83 - val loss: 2.3903 - val mae: 1.5461
Epoch 45/250
1/1 [===========] - 0s 37ms/step - loss: 2.1143 - mae: 1.39
78 - val loss: 2.2903 - val mae: 1.5134
Epoch 46/250
1/1 [============ ] - 0s 38ms/step - loss: 1.9922 - mae: 1.35
34 - val loss: 2.1862 - val mae: 1.4786
Epoch 47/250
46 - val loss: 2.0778 - val mae: 1.4415
Epoch 48/250
1/1 [============ ] - 0s 43ms/step - loss: 1.7240 - mae: 1.25
06 - val_loss: 1.9654 - val_mae: 1.4019
Epoch 49/250
1/1 [============ ] - 0s 66ms/step - loss: 1.5773 - mae: 1.19
07 - val loss: 1.8493 - val mae: 1.3599
Epoch 50/250
```

```
42 - val_loss: 1.7304 - val_mae: 1.3154
Epoch 51/250
03 - val_loss: 1.6096 - val_mae: 1.2687
Epoch 52/250
1/1 [============ ] - 0s 36ms/step - loss: 1.0930 - mae: 0.96
81 - val_loss: 1.4884 - val_mae: 1.2200
Epoch 53/250
67 - val_loss: 1.3684 - val_mae: 1.1698
Epoch 54/250
1/1 [============= ] - 0s 38ms/step - loss: 0.7522 - mae: 0.77
55 - val_loss: 1.2515 - val_mae: 1.1187
Epoch 55/250
1/1 [============ ] - 0s 38ms/step - loss: 0.5876 - mae: 0.66
38 - val_loss: 1.1396 - val_mae: 1.0675
Epoch 56/250
1/1 [============= ] - 0s 38ms/step - loss: 0.4351 - mae: 0.54
12 - val_loss: 1.0348 - val_mae: 1.0173
Epoch 57/250
33 - val_loss: 0.9390 - val_mae: 0.9690
Epoch 58/250
1/1 [============== ] - 0s 36ms/step - loss: 0.2005 - mae: 0.33
31 - val_loss: 0.8537 - val_mae: 0.9239
Epoch 59/250
07 - val_loss: 0.7797 - val_mae: 0.8830
Epoch 60/250
1/1 [============== ] - 0s 36ms/step - loss: 0.1168 - mae: 0.27
87 - val_loss: 0.7165 - val_mae: 0.8465
Epoch 61/250
11 - val_loss: 0.6622 - val_mae: 0.8137
Epoch 62/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1952 - mae: 0.35
90 - val_loss: 0.6142 - val_mae: 0.7837
Epoch 63/250
88 - val_loss: 0.5716 - val_mae: 0.7560
Epoch 64/250
1/1 [============== ] - 0s 35ms/step - loss: 0.3053 - mae: 0.49
01 - val_loss: 0.5348 - val_mae: 0.7313
Epoch 65/250
1/1 [============== ] - 0s 35ms/step - loss: 0.3193 - mae: 0.50
43 - val_loss: 0.5054 - val_mae: 0.7109
Epoch 66/250
1/1 [============ ] - 0s 39ms/step - loss: 0.2990 - mae: 0.48
49 - val_loss: 0.4844 - val_mae: 0.6960
Epoch 67/250
1/1 [============= ] - 0s 69ms/step - loss: 0.2548 - mae: 0.44
18 - val loss: 0.4725 - val mae: 0.6874
Epoch 68/250
1/1 [===========] - 0s 41ms/step - loss: 0.2012 - mae: 0.38
88 - val loss: 0.4693 - val mae: 0.6851
Epoch 69/250
35 - val loss: 0.4740 - val mae: 0.6885
Epoch 70/250
59 - val loss: 0.4851 - val mae: 0.6965
Epoch 71/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0891 - mae: 0.24
44 - val loss: 0.5008 - val mae: 0.7076
Epoch 72/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0793 - mae: 0.22
01 - val loss: 0.5192 - val mae: 0.7206
Epoch 73/250
1/1 [=============== ] - 0s 41ms/step - loss: 0.0801 - mae: 0.21
```

```
59 - val_loss: 0.5387 - val_mae: 0.7339
Epoch 74/250
06 - val_loss: 0.5576 - val_mae: 0.7467
Epoch 75/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0982 - mae: 0.23
49 - val_loss: 0.5750 - val_mae: 0.7583
Epoch 76/250
95 - val_loss: 0.5900 - val_mae: 0.7681
Epoch 77/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1173 - mae: 0.25
89 - val_loss: 0.6023 - val_mae: 0.7761
Epoch 78/250
42 - val_loss: 0.6119 - val_mae: 0.7822
Epoch 79/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1241 - mae: 0.26
47 - val_loss: 0.6187 - val_mae: 0.7866
Epoch 80/250
1/1 [============= ] - 0s 34ms/step - loss: 0.1220 - mae: 0.26
06 - val loss: 0.6234 - val mae: 0.7895
Epoch 81/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1166 - mae: 0.25
34 - val_loss: 0.6262 - val_mae: 0.7913
Epoch 82/250
1/1 [============= ] - 0s 39ms/step - loss: 0.1087 - mae: 0.24
32 - val_loss: 0.6277 - val_mae: 0.7923
Epoch 83/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0994 - mae: 0.23
05 - val_loss: 0.6286 - val_mae: 0.7929
Epoch 84/250
07 - val_loss: 0.6294 - val_mae: 0.7934
Epoch 85/250
1/1 [=============== ] - 0s 41ms/step - loss: 0.0806 - mae: 0.21
03 - val_loss: 0.6306 - val_mae: 0.7941
Epoch 86/250
31 - val_loss: 0.6326 - val_mae: 0.7954
Epoch 87/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0673 - mae: 0.20
09 - val_loss: 0.6357 - val_mae: 0.7973
Epoch 88/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0640 - mae: 0.20
08 - val_loss: 0.6399 - val_mae: 0.8000
Epoch 89/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0629 - mae: 0.20
32 - val_loss: 0.6454 - val_mae: 0.8034
Epoch 90/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0637 - mae: 0.20
78 - val loss: 0.6517 - val mae: 0.8073
Epoch 91/250
1/1 [===========] - 0s 40ms/step - loss: 0.0656 - mae: 0.21
26 - val loss: 0.6584 - val mae: 0.8114
Epoch 92/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0679 - mae: 0.21
74 - val loss: 0.6652 - val mae: 0.8156
Epoch 93/250
05 - val loss: 0.6718 - val mae: 0.8196
Epoch 94/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0708 - mae: 0.22
18 - val loss: 0.6780 - val mae: 0.8234
Epoch 95/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0706 - mae: 0.22
15 - val loss: 0.6836 - val mae: 0.8268
Epoch 96/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0691 - mae: 0.21
```

```
96 - val_loss: 0.6886 - val_mae: 0.8298
Epoch 97/250
63 - val_loss: 0.6929 - val_mae: 0.8324
Epoch 98/250
20 - val_loss: 0.6966 - val_mae: 0.8346
Epoch 99/250
69 - val_loss: 0.6997 - val_mae: 0.8365
Epoch 100/250
13 - val_loss: 0.7023 - val_mae: 0.8380
Epoch 101/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0571 - mae: 0.19
71 - val_loss: 0.7043 - val_mae: 0.8392
Epoch 102/250
1/1 [=========== ] - 0s 36ms/step - loss: 0.0559 - mae: 0.19
34 - val_loss: 0.7059 - val_mae: 0.8402
Epoch 103/250
01 - val_loss: 0.7069 - val_mae: 0.8407
Epoch 104/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0552 - mae: 0.18
73 - val_loss: 0.7072 - val_mae: 0.8410
Epoch 105/250
48 - val_loss: 0.7070 - val_mae: 0.8408
Epoch 106/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0555 - mae: 0.18
27 - val_loss: 0.7062 - val_mae: 0.8403
Epoch 107/250
13 - val_loss: 0.7047 - val_mae: 0.8395
Epoch 108/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0555 - mae: 0.18
04 - val_loss: 0.7026 - val_mae: 0.8382
Epoch 109/250
94 - val_loss: 0.7001 - val_mae: 0.8367
Epoch 110/250
1/1 [============== ] - 0s 52ms/step - loss: 0.0545 - mae: 0.17
83 - val_loss: 0.6970 - val_mae: 0.8349
Epoch 111/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0537 - mae: 0.17
74 - val_loss: 0.6937 - val_mae: 0.8329
Epoch 112/250
1/1 [============= ] - 0s 50ms/step - loss: 0.0528 - mae: 0.17
70 - val_loss: 0.6901 - val_mae: 0.8307
Epoch 113/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0519 - mae: 0.17
67 - val loss: 0.6863 - val mae: 0.8284
Epoch 114/250
1/1 [===========] - 0s 36ms/step - loss: 0.0510 - mae: 0.17
70 - val loss: 0.6826 - val mae: 0.8262
Epoch 115/250
74 - val loss: 0.6789 - val mae: 0.8240
Epoch 116/250
79 - val loss: 0.6754 - val mae: 0.8218
Epoch 117/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0493 - mae: 0.17
82 - val_loss: 0.6722 - val_mae: 0.8199
Epoch 118/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0489 - mae: 0.17
84 - val loss: 0.6694 - val mae: 0.8181
Epoch 119/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0487 - mae: 0.17
```

```
85 - val_loss: 0.6669 - val_mae: 0.8166
Epoch 120/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0485 - mae: 0.17
83 - val_loss: 0.6649 - val_mae: 0.8154
Epoch 121/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0482 - mae: 0.17
79 - val_loss: 0.6634 - val_mae: 0.8145
Epoch 122/250
73 - val_loss: 0.6624 - val_mae: 0.8139
Epoch 123/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0475 - mae: 0.17
65 - val_loss: 0.6618 - val_mae: 0.8135
Epoch 124/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0471 - mae: 0.17
55 - val_loss: 0.6617 - val_mae: 0.8134
Epoch 125/250
1/1 [===========] - 0s 40ms/step - loss: 0.0466 - mae: 0.17
43 - val_loss: 0.6620 - val_mae: 0.8136
Epoch 126/250
30 - val_loss: 0.6627 - val_mae: 0.8140
Epoch 127/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0456 - mae: 0.17
17 - val_loss: 0.6637 - val_mae: 0.8147
Epoch 128/250
03 - val_loss: 0.6649 - val_mae: 0.8154
Epoch 129/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0448 - mae: 0.16
89 - val_loss: 0.6663 - val_mae: 0.8163
Epoch 130/250
76 - val_loss: 0.6678 - val_mae: 0.8172
Epoch 131/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0441 - mae: 0.16
65 - val_loss: 0.6693 - val_mae: 0.8181
Epoch 132/250
55 - val_loss: 0.6708 - val_mae: 0.8190
Epoch 133/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0435 - mae: 0.16
46 - val_loss: 0.6722 - val_mae: 0.8199
Epoch 134/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0432 - mae: 0.16
38 - val_loss: 0.6735 - val_mae: 0.8207
Epoch 135/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0429 - mae: 0.16
31 - val_loss: 0.6747 - val_mae: 0.8214
Epoch 136/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0426 - mae: 0.16
24 - val loss: 0.6757 - val mae: 0.8220
Epoch 137/250
1/1 [===========] - 0s 43ms/step - loss: 0.0423 - mae: 0.16
19 - val loss: 0.6764 - val mae: 0.8224
Epoch 138/250
14 - val loss: 0.6770 - val mae: 0.8228
Epoch 139/250
09 - val loss: 0.6773 - val mae: 0.8230
Epoch 140/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0412 - mae: 0.16
04 - val_loss: 0.6775 - val_mae: 0.8231
Epoch 141/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0409 - mae: 0.16
00 - val loss: 0.6774 - val mae: 0.8231
Epoch 142/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0406 - mae: 0.15
```

```
95 - val_loss: 0.6772 - val_mae: 0.8229
Epoch 143/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0403 - mae: 0.15
91 - val_loss: 0.6768 - val_mae: 0.8227
Epoch 144/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0400 - mae: 0.15
86 - val_loss: 0.6763 - val_mae: 0.8224
Epoch 145/250
80 - val_loss: 0.6757 - val_mae: 0.8220
Epoch 146/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0394 - mae: 0.15
74 - val_loss: 0.6749 - val_mae: 0.8215
Epoch 147/250
67 - val_loss: 0.6741 - val_mae: 0.8210
Epoch 148/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0389 - mae: 0.15
60 - val_loss: 0.6732 - val_mae: 0.8205
Epoch 149/250
53 - val_loss: 0.6723 - val_mae: 0.8199
Epoch 150/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0383 - mae: 0.15
45 - val_loss: 0.6713 - val_mae: 0.8194
Epoch 151/250
37 - val_loss: 0.6704 - val_mae: 0.8188
Epoch 152/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0377 - mae: 0.15
29 - val_loss: 0.6694 - val_mae: 0.8182
Epoch 153/250
21 - val_loss: 0.6684 - val_mae: 0.8176
Epoch 154/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0372 - mae: 0.15
13 - val_loss: 0.6675 - val_mae: 0.8170
Epoch 155/250
05 - val_loss: 0.6665 - val_mae: 0.8164
Epoch 156/250
1/1 [============== ] - 0s 68ms/step - loss: 0.0367 - mae: 0.14
97 - val_loss: 0.6656 - val_mae: 0.8158
Epoch 157/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0364 - mae: 0.14
90 - val_loss: 0.6647 - val_mae: 0.8153
Epoch 158/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0362 - mae: 0.14
83 - val_loss: 0.6638 - val_mae: 0.8147
Epoch 159/250
1/1 [============] - 0s 38ms/step - loss: 0.0359 - mae: 0.14
77 - val loss: 0.6629 - val mae: 0.8142
Epoch 160/250
1/1 [===========] - 0s 37ms/step - loss: 0.0357 - mae: 0.14
72 - val loss: 0.6620 - val mae: 0.8136
Epoch 161/250
67 - val loss: 0.6611 - val mae: 0.8131
Epoch 162/250
62 - val loss: 0.6603 - val mae: 0.8126
Epoch 163/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0349 - mae: 0.14
58 - val_loss: 0.6594 - val_mae: 0.8121
Epoch 164/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0347 - mae: 0.14
54 - val loss: 0.6586 - val mae: 0.8116
Epoch 165/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0345 - mae: 0.14
```

```
50 - val_loss: 0.6578 - val_mae: 0.8110
Epoch 166/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0343 - mae: 0.14
47 - val_loss: 0.6570 - val_mae: 0.8105
Epoch 167/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0340 - mae: 0.14
43 - val_loss: 0.6561 - val_mae: 0.8100
Epoch 168/250
1/1 [============= ] - 0s 69ms/step - loss: 0.0338 - mae: 0.14
39 - val_loss: 0.6553 - val_mae: 0.8095
Epoch 169/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0336 - mae: 0.14
35 - val_loss: 0.6545 - val_mae: 0.8090
Epoch 170/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0334 - mae: 0.14
31 - val_loss: 0.6536 - val_mae: 0.8084
Epoch 171/250
1/1 [============ ] - 0s 45ms/step - loss: 0.0332 - mae: 0.14
26 - val_loss: 0.6527 - val_mae: 0.8079
Epoch 172/250
22 - val_loss: 0.6518 - val_mae: 0.8073
Epoch 173/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0328 - mae: 0.14
16 - val_loss: 0.6508 - val_mae: 0.8067
Epoch 174/250
11 - val_loss: 0.6498 - val_mae: 0.8061
Epoch 175/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0324 - mae: 0.14
05 - val_loss: 0.6488 - val_mae: 0.8055
Epoch 176/250
00 - val_loss: 0.6477 - val_mae: 0.8048
Epoch 177/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0320 - mae: 0.13
94 - val_loss: 0.6465 - val_mae: 0.8041
Epoch 178/250
88 - val_loss: 0.6453 - val_mae: 0.8033
Epoch 179/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0316 - mae: 0.13
82 - val_loss: 0.6440 - val_mae: 0.8025
Epoch 180/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0314 - mae: 0.13
76 - val_loss: 0.6427 - val_mae: 0.8017
Epoch 181/250
1/1 [============= ] - 0s 66ms/step - loss: 0.0312 - mae: 0.13
71 - val_loss: 0.6413 - val_mae: 0.8008
Epoch 182/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0310 - mae: 0.13
66 - val loss: 0.6398 - val mae: 0.7999
Epoch 183/250
1/1 [===========] - 0s 35ms/step - loss: 0.0308 - mae: 0.13
62 - val loss: 0.6383 - val mae: 0.7989
Epoch 184/250
58 - val loss: 0.6367 - val mae: 0.7980
Epoch 185/250
55 - val loss: 0.6351 - val mae: 0.7969
Epoch 186/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0303 - mae: 0.13
51 - val_loss: 0.6334 - val_mae: 0.7959
Epoch 187/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0301 - mae: 0.13
48 - val loss: 0.6317 - val mae: 0.7948
Epoch 188/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0299 - mae: 0.13
```

```
45 - val_loss: 0.6300 - val_mae: 0.7937
Epoch 189/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0298 - mae: 0.13
42 - val_loss: 0.6283 - val_mae: 0.7926
Epoch 190/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0296 - mae: 0.13
39 - val_loss: 0.6265 - val_mae: 0.7915
Epoch 191/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0294 - mae: 0.13
36 - val_loss: 0.6247 - val_mae: 0.7904
Epoch 192/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0293 - mae: 0.13
33 - val_loss: 0.6230 - val_mae: 0.7893
Epoch 193/250
30 - val_loss: 0.6212 - val_mae: 0.7882
Epoch 194/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0289 - mae: 0.13
27 - val_loss: 0.6194 - val_mae: 0.7870
Epoch 195/250
23 - val_loss: 0.6177 - val_mae: 0.7859
Epoch 196/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0286 - mae: 0.13
20 - val_loss: 0.6159 - val_mae: 0.7848
Epoch 197/250
16 - val_loss: 0.6141 - val_mae: 0.7837
Epoch 198/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0283 - mae: 0.13
12 - val_loss: 0.6124 - val_mae: 0.7826
Epoch 199/250
09 - val_loss: 0.6107 - val_mae: 0.7815
Epoch 200/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0279 - mae: 0.13
05 - val_loss: 0.6089 - val_mae: 0.7803
Epoch 201/250
01 - val_loss: 0.6072 - val_mae: 0.7792
Epoch 202/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0276 - mae: 0.12
97 - val_loss: 0.6055 - val_mae: 0.7781
Epoch 203/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0275 - mae: 0.12
93 - val_loss: 0.6037 - val_mae: 0.7770
Epoch 204/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0273 - mae: 0.12
89 - val_loss: 0.6020 - val_mae: 0.7759
Epoch 205/250
85 - val loss: 0.6003 - val mae: 0.7748
Epoch 206/250
1/1 [===========] - 0s 47ms/step - loss: 0.0270 - mae: 0.12
81 - val loss: 0.5985 - val mae: 0.7737
Epoch 207/250
77 - val loss: 0.5968 - val mae: 0.7725
Epoch 208/250
73 - val loss: 0.5951 - val mae: 0.7714
Epoch 209/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0265 - mae: 0.12
69 - val_loss: 0.5933 - val_mae: 0.7703
Epoch 210/250
1/1 [============] - 0s 36ms/step - loss: 0.0264 - mae: 0.12
66 - val loss: 0.5916 - val mae: 0.7691
Epoch 211/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0262 - mae: 0.12
```

```
62 - val_loss: 0.5898 - val_mae: 0.7680
Epoch 212/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0260 - mae: 0.12
58 - val_loss: 0.5880 - val_mae: 0.7668
Epoch 213/250
55 - val_loss: 0.5863 - val_mae: 0.7657
Epoch 214/250
51 - val_loss: 0.5845 - val_mae: 0.7646
Epoch 215/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0256 - mae: 0.12
47 - val_loss: 0.5828 - val_mae: 0.7634
Epoch 216/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0254 - mae: 0.12
44 - val_loss: 0.5810 - val_mae: 0.7623
Epoch 217/250
1/1 [===========] - 0s 36ms/step - loss: 0.0253 - mae: 0.12
42 - val_loss: 0.5793 - val_mae: 0.7611
Epoch 218/250
39 - val_loss: 0.5776 - val_mae: 0.7600
Epoch 219/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0250 - mae: 0.12
36 - val_loss: 0.5758 - val_mae: 0.7588
Epoch 220/250
34 - val_loss: 0.5741 - val_mae: 0.7577
Epoch 221/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0247 - mae: 0.12
31 - val_loss: 0.5724 - val_mae: 0.7566
Epoch 222/250
28 - val_loss: 0.5707 - val_mae: 0.7554
Epoch 223/250
1/1 [============== ] - 0s 64ms/step - loss: 0.0244 - mae: 0.12
25 - val_loss: 0.5689 - val_mae: 0.7543
Epoch 224/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0242 - mae: 0.12
23 - val_loss: 0.5672 - val_mae: 0.7531
Epoch 225/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0241 - mae: 0.12
20 - val_loss: 0.5655 - val_mae: 0.7520
Epoch 226/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0239 - mae: 0.12
17 - val_loss: 0.5638 - val_mae: 0.7509
Epoch 227/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0238 - mae: 0.12
14 - val_loss: 0.5621 - val_mae: 0.7497
Epoch 228/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0237 - mae: 0.12
11 - val loss: 0.5604 - val mae: 0.7486
Epoch 229/250
1/1 [===========] - 0s 42ms/step - loss: 0.0235 - mae: 0.12
08 - val loss: 0.5587 - val mae: 0.7475
Epoch 230/250
06 - val loss: 0.5570 - val mae: 0.7463
Epoch 231/250
03 - val loss: 0.5553 - val mae: 0.7452
Epoch 232/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0231 - mae: 0.12
00 - val_loss: 0.5537 - val_mae: 0.7441
Epoch 233/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0229 - mae: 0.11
97 - val loss: 0.5520 - val mae: 0.7430
Epoch 234/250
1/1 [=============== ] - 0s 45ms/step - loss: 0.0228 - mae: 0.11
```

```
94 - val_loss: 0.5504 - val_mae: 0.7419
Epoch 235/250
91 - val_loss: 0.5487 - val_mae: 0.7407
Epoch 236/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0225 - mae: 0.11
88 - val_loss: 0.5471 - val_mae: 0.7396
Epoch 237/250
85 - val_loss: 0.5454 - val_mae: 0.7385
Epoch 238/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0222 - mae: 0.11
82 - val_loss: 0.5438 - val_mae: 0.7374
Epoch 239/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0221 - mae: 0.11
79 - val_loss: 0.5422 - val_mae: 0.7363
Epoch 240/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0219 - mae: 0.11
76 - val_loss: 0.5406 - val_mae: 0.7352
Epoch 241/250
73 - val_loss: 0.5390 - val_mae: 0.7342
Epoch 242/250
1/1 [============== ] - 0s 70ms/step - loss: 0.0217 - mae: 0.11
69 - val_loss: 0.5374 - val_mae: 0.7331
Epoch 243/250
66 - val_loss: 0.5358 - val_mae: 0.7320
Epoch 244/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0214 - mae: 0.11
63 - val_loss: 0.5342 - val_mae: 0.7309
Epoch 245/250
59 - val_loss: 0.5326 - val_mae: 0.7298
Epoch 246/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0211 - mae: 0.11
56 - val_loss: 0.5311 - val_mae: 0.7287
Epoch 247/250
53 - val_loss: 0.5295 - val_mae: 0.7277
Epoch 248/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0208 - mae: 0.11
49 - val_loss: 0.5279 - val_mae: 0.7266
Epoch 249/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0207 - mae: 0.11
46 - val_loss: 0.5264 - val_mae: 0.7255
Epoch 250/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0205 - mae: 0.11
42 - val_loss: 0.5248 - val_mae: 0.7244
Epoch 1/250
5874 - val loss: 10.4370 - val mae: 3.2306
Epoch 2/250
1/1 [============ ] - 0s 33ms/step - loss: 12.0070 - mae: 3.4
472 - val loss: 9.6760 - val mae: 3.1106
Epoch 3/250
1/1 [============ ] - 0s 31ms/step - loss: 11.1542 - mae: 3.3
225 - val loss: 8.9338 - val mae: 2.9890
Epoch 4/250
064 - val loss: 8.3170 - val mae: 2.8839
Epoch 5/250
1/1 [============= ] - 0s 49ms/step - loss: 9.7050 - mae: 3.09
72 - val_loss: 7.8116 - val_mae: 2.7949
Epoch 6/250
1/1 [============== ] - 0s 45ms/step - loss: 9.0611 - mae: 2.99
14 - val loss: 7.3749 - val mae: 2.7157
Epoch 7/250
1/1 [============== ] - 0s 51ms/step - loss: 8.4466 - mae: 2.88
```

```
68 - val_loss: 6.9738 - val_mae: 2.6408
Epoch 8/250
10 - val_loss: 6.5876 - val_mae: 2.5666
Epoch 9/250
24 - val_loss: 6.2029 - val_mae: 2.4906
Epoch 10/250
96 - val_loss: 5.8092 - val_mae: 2.4102
Epoch 11/250
17 - val_loss: 5.4097 - val_mae: 2.3259
Epoch 12/250
71 - val_loss: 5.0023 - val_mae: 2.2366
Epoch 13/250
45 - val_loss: 4.5903 - val_mae: 2.1425
Epoch 14/250
25 - val_loss: 4.1722 - val_mae: 2.0426
Epoch 15/250
1/1 [============] - 0s 42ms/step - loss: 3.7367 - mae: 1.88
95 - val_loss: 3.7393 - val_mae: 1.9337
Epoch 16/250
1/1 [============= ] - 0s 33ms/step - loss: 3.1603 - mae: 1.72
41 - val_loss: 3.2820 - val_mae: 1.8116
Epoch 17/250
1/1 [============== ] - 0s 40ms/step - loss: 2.6005 - mae: 1.54
53 - val_loss: 2.7936 - val_mae: 1.6714
Epoch 18/250
18 - val_loss: 2.2754 - val_mae: 1.5084
Epoch 19/250
1/1 [============== ] - 0s 36ms/step - loss: 1.5755 - mae: 1.14
31 - val_loss: 1.7433 - val_mae: 1.3203
Epoch 20/250
01 - val_loss: 1.2241 - val_mae: 1.1064
Epoch 21/250
1/1 [============== ] - 0s 38ms/step - loss: 0.7909 - mae: 0.68
63 - val_loss: 0.7569 - val_mae: 0.8700
Epoch 22/250
1/1 [============= ] - 0s 36ms/step - loss: 0.5355 - mae: 0.52
26 - val_loss: 0.3761 - val_mae: 0.6133
Epoch 23/250
1/1 [============= ] - 0s 36ms/step - loss: 0.3887 - mae: 0.47
86 - val_loss: 0.1167 - val_mae: 0.3416
Epoch 24/250
1/1 [============ ] - 0s 38ms/step - loss: 0.3503 - mae: 0.48
40 - val loss: 0.0042 - val mae: 0.0650
Epoch 25/250
1/1 [============ ] - 0s 35ms/step - loss: 0.4025 - mae: 0.52
95 - val loss: 0.0406 - val mae: 0.2015
Epoch 26/250
1/1 [============= ] - 0s 42ms/step - loss: 0.5075 - mae: 0.61
91 - val loss: 0.1949 - val mae: 0.4414
Epoch 27/250
05 - val loss: 0.4109 - val mae: 0.6410
Epoch 28/250
1/1 [============= ] - 0s 57ms/step - loss: 0.6865 - mae: 0.72
71 - val_loss: 0.6275 - val_mae: 0.7922
Epoch 29/250
1/1 [============ ] - 0s 63ms/step - loss: 0.6993 - mae: 0.73
13 - val loss: 0.7963 - val mae: 0.8924
Epoch 30/250
1/1 [============== ] - 0s 45ms/step - loss: 0.6566 - mae: 0.70
```

```
79 - val_loss: 0.8906 - val_mae: 0.9437
Epoch 31/250
49 - val_loss: 0.9052 - val_mae: 0.9514
Epoch 32/250
1/1 [============ ] - 0s 50ms/step - loss: 0.4759 - mae: 0.58
31 - val_loss: 0.8510 - val_mae: 0.9225
Epoch 33/250
60 - val_loss: 0.7484 - val_mae: 0.8651
Epoch 34/250
1/1 [============= ] - 0s 37ms/step - loss: 0.2979 - mae: 0.43
57 - val_loss: 0.6200 - val_mae: 0.7874
Epoch 35/250
12 - val_loss: 0.4860 - val_mae: 0.6971
Epoch 36/250
46 - val_loss: 0.3614 - val_mae: 0.6012
Epoch 37/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1890 - mae: 0.36
61 - val_loss: 0.2551 - val_mae: 0.5051
Epoch 38/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1886 - mae: 0.36
13 - val_loss: 0.1708 - val_mae: 0.4132
Epoch 39/250
18 - val_loss: 0.1081 - val_mae: 0.3288
Epoch 40/250
1/1 [============== ] - 0s 36ms/step - loss: 0.2078 - mae: 0.36
24 - val_loss: 0.0644 - val_mae: 0.2538
Epoch 41/250
18 - val_loss: 0.0360 - val_mae: 0.1896
Epoch 42/250
1/1 [============== ] - 0s 32ms/step - loss: 0.2236 - mae: 0.37
88 - val_loss: 0.0188 - val_mae: 0.1370
Epoch 43/250
01 - val_loss: 0.0092 - val_mae: 0.0960
Epoch 44/250
1/1 [============== ] - 0s 32ms/step - loss: 0.2183 - mae: 0.37
55 - val_loss: 0.0045 - val_mae: 0.0669
Epoch 45/250
1/1 [============== ] - 0s 36ms/step - loss: 0.2074 - mae: 0.36
85 - val_loss: 0.0024 - val_mae: 0.0491
Epoch 46/250
76 - val_loss: 0.0018 - val_mae: 0.0424
Epoch 47/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1744 - mae: 0.34
20 - val loss: 0.0021 - val mae: 0.0462
Epoch 48/250
1/1 [===========] - 0s 33ms/step - loss: 0.1556 - mae: 0.32
23 - val loss: 0.0036 - val mae: 0.0597
Epoch 49/250
54 - val loss: 0.0068 - val mae: 0.0822
Epoch 50/250
02 - val loss: 0.0127 - val mae: 0.1125
Epoch 51/250
1/1 [============= ] - 0s 28ms/step - loss: 0.1086 - mae: 0.27
67 - val loss: 0.0223 - val mae: 0.1495
Epoch 52/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0995 - mae: 0.26
76 - val loss: 0.0368 - val mae: 0.1917
Epoch 53/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0940 - mae: 0.25
```

```
90 - val_loss: 0.0565 - val_mae: 0.2377
Epoch 54/250
28 - val_loss: 0.0815 - val_mae: 0.2855
Epoch 55/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0924 - mae: 0.24
99 - val_loss: 0.1112 - val_mae: 0.3335
Epoch 56/250
60 - val_loss: 0.1441 - val_mae: 0.3796
Epoch 57/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0965 - mae: 0.24
35 - val_loss: 0.1782 - val_mae: 0.4222
Epoch 58/250
00 - val_loss: 0.2112 - val_mae: 0.4596
Epoch 59/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0987 - mae: 0.23
70 - val_loss: 0.2406 - val_mae: 0.4905
Epoch 60/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0977 - mae: 0.23
41 - val loss: 0.2644 - val mae: 0.5142
Epoch 61/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0953 - mae: 0.23
14 - val_loss: 0.2811 - val_mae: 0.5302
Epoch 62/250
73 - val_loss: 0.2899 - val_mae: 0.5384
Epoch 63/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0874 - mae: 0.22
12 - val_loss: 0.2911 - val_mae: 0.5395
Epoch 64/250
35 - val_loss: 0.2856 - val_mae: 0.5344
Epoch 65/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0787 - mae: 0.20
47 - val_loss: 0.2749 - val_mae: 0.5243
Epoch 66/250
58 - val_loss: 0.2606 - val_mae: 0.5105
Epoch 67/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0723 - mae: 0.19
13 - val_loss: 0.2443 - val_mae: 0.4942
Epoch 68/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0704 - mae: 0.18
96 - val_loss: 0.2274 - val_mae: 0.4769
Epoch 69/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0691 - mae: 0.19
16 - val_loss: 0.2113 - val_mae: 0.4596
Epoch 70/250
1/1 [============= ] - 0s 59ms/step - loss: 0.0684 - mae: 0.19
47 - val loss: 0.1966 - val mae: 0.4434
Epoch 71/250
1/1 [============= ] - 0s 61ms/step - loss: 0.0679 - mae: 0.19
81 - val loss: 0.1841 - val mae: 0.4291
Epoch 72/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0676 - mae: 0.20
09 - val loss: 0.1741 - val mae: 0.4173
Epoch 73/250
30 - val loss: 0.1668 - val mae: 0.4084
Epoch 74/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0666 - mae: 0.20
55 - val_loss: 0.1622 - val_mae: 0.4028
Epoch 75/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0659 - mae: 0.20
74 - val loss: 0.1603 - val mae: 0.4004
Epoch 76/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0649 - mae: 0.20
```

```
80 - val_loss: 0.1610 - val_mae: 0.4013
Epoch 77/250
76 - val_loss: 0.1641 - val_mae: 0.4051
Epoch 78/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0626 - mae: 0.20
64 - val_loss: 0.1693 - val_mae: 0.4115
Epoch 79/250
48 - val_loss: 0.1764 - val_mae: 0.4200
Epoch 80/250
26 - val_loss: 0.1849 - val_mae: 0.4300
Epoch 81/250
99 - val_loss: 0.1945 - val_mae: 0.4410
Epoch 82/250
74 - val_loss: 0.2046 - val_mae: 0.4523
Epoch 83/250
45 - val_loss: 0.2146 - val_mae: 0.4632
Epoch 84/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0567 - mae: 0.19
13 - val_loss: 0.2240 - val_mae: 0.4732
Epoch 85/250
85 - val_loss: 0.2322 - val_mae: 0.4819
Epoch 86/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0554 - mae: 0.18
60 - val_loss: 0.2388 - val_mae: 0.4887
Epoch 87/250
38 - val_loss: 0.2434 - val_mae: 0.4934
Epoch 88/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0541 - mae: 0.18
19 - val_loss: 0.2459 - val_mae: 0.4959
Epoch 89/250
99 - val_loss: 0.2462 - val_mae: 0.4962
Epoch 90/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0528 - mae: 0.17
79 - val_loss: 0.2445 - val_mae: 0.4945
Epoch 91/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0521 - mae: 0.17
58 - val_loss: 0.2410 - val_mae: 0.4909
Epoch 92/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0514 - mae: 0.17
38 - val_loss: 0.2361 - val_mae: 0.4859
Epoch 93/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0507 - mae: 0.17
18 - val loss: 0.2302 - val mae: 0.4798
Epoch 94/250
1/1 [===========] - 0s 31ms/step - loss: 0.0501 - mae: 0.16
99 - val loss: 0.2238 - val mae: 0.4731
Epoch 95/250
87 - val loss: 0.2172 - val mae: 0.4661
Epoch 96/250
82 - val loss: 0.2110 - val mae: 0.4593
Epoch 97/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0483 - mae: 0.16
82 - val_loss: 0.2053 - val_mae: 0.4531
Epoch 98/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0477 - mae: 0.16
83 - val loss: 0.2004 - val mae: 0.4477
Epoch 99/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0472 - mae: 0.16
```

```
84 - val_loss: 0.1966 - val_mae: 0.4434
Epoch 100/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0467 - mae: 0.16
86 - val_loss: 0.1939 - val_mae: 0.4404
Epoch 101/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0461 - mae: 0.16
87 - val_loss: 0.1924 - val_mae: 0.4387
Epoch 102/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0456 - mae: 0.16
87 - val_loss: 0.1921 - val_mae: 0.4383
Epoch 103/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0450 - mae: 0.16
86 - val_loss: 0.1928 - val_mae: 0.4391
Epoch 104/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0445 - mae: 0.16
83 - val_loss: 0.1945 - val_mae: 0.4411
Epoch 105/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0439 - mae: 0.16
79 - val_loss: 0.1970 - val_mae: 0.4439
Epoch 106/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0434 - mae: 0.16
74 - val_loss: 0.2001 - val_mae: 0.4474
Epoch 107/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0428 - mae: 0.16
67 - val_loss: 0.2036 - val_mae: 0.4513
Epoch 108/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0423 - mae: 0.16
58 - val_loss: 0.2073 - val_mae: 0.4553
Epoch 109/250
48 - val_loss: 0.2109 - val_mae: 0.4592
Epoch 110/250
38 - val_loss: 0.2141 - val_mae: 0.4627
Epoch 111/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0408 - mae: 0.16
26 - val_loss: 0.2169 - val_mae: 0.4658
Epoch 112/250
15 - val_loss: 0.2191 - val_mae: 0.4681
Epoch 113/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0398 - mae: 0.16
03 - val_loss: 0.2205 - val_mae: 0.4696
Epoch 114/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0394 - mae: 0.15
91 - val_loss: 0.2212 - val_mae: 0.4703
Epoch 115/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0389 - mae: 0.15
80 - val_loss: 0.2211 - val_mae: 0.4702
Epoch 116/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0384 - mae: 0.15
70 - val loss: 0.2203 - val mae: 0.4694
Epoch 117/250
1/1 [===========] - 0s 32ms/step - loss: 0.0379 - mae: 0.15
60 - val loss: 0.2189 - val mae: 0.4679
Epoch 118/250
50 - val loss: 0.2171 - val mae: 0.4659
Epoch 119/250
41 - val loss: 0.2150 - val mae: 0.4636
Epoch 120/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0365 - mae: 0.15
33 - val_loss: 0.2127 - val_mae: 0.4612
Epoch 121/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0361 - mae: 0.15
26 - val loss: 0.2104 - val mae: 0.4587
Epoch 122/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0356 - mae: 0.15
```

```
18 - val_loss: 0.2083 - val_mae: 0.4563
Epoch 123/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0352 - mae: 0.15
11 - val_loss: 0.2064 - val_mae: 0.4543
Epoch 124/250
04 - val_loss: 0.2049 - val_mae: 0.4526
Epoch 125/250
96 - val_loss: 0.2038 - val_mae: 0.4514
Epoch 126/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0338 - mae: 0.14
88 - val_loss: 0.2031 - val_mae: 0.4507
Epoch 127/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0334 - mae: 0.14
80 - val_loss: 0.2029 - val_mae: 0.4504
Epoch 128/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0330 - mae: 0.14
71 - val_loss: 0.2031 - val_mae: 0.4506
Epoch 129/250
62 - val_loss: 0.2036 - val_mae: 0.4512
Epoch 130/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0322 - mae: 0.14
52 - val_loss: 0.2045 - val_mae: 0.4522
Epoch 131/250
42 - val_loss: 0.2056 - val_mae: 0.4534
Epoch 132/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0313 - mae: 0.14
32 - val_loss: 0.2068 - val_mae: 0.4547
Epoch 133/250
21 - val_loss: 0.2080 - val_mae: 0.4561
Epoch 134/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0305 - mae: 0.14
10 - val_loss: 0.2092 - val_mae: 0.4574
Epoch 135/250
99 - val_loss: 0.2103 - val_mae: 0.4586
Epoch 136/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0297 - mae: 0.13
89 - val_loss: 0.2113 - val_mae: 0.4597
Epoch 137/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0293 - mae: 0.13
78 - val_loss: 0.2120 - val_mae: 0.4605
Epoch 138/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0289 - mae: 0.13
67 - val_loss: 0.2126 - val_mae: 0.4611
Epoch 139/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0285 - mae: 0.13
57 - val loss: 0.2129 - val mae: 0.4614
Epoch 140/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0282 - mae: 0.13
48 - val loss: 0.2130 - val mae: 0.4616
Epoch 141/250
38 - val loss: 0.2130 - val mae: 0.4615
Epoch 142/250
29 - val loss: 0.2129 - val mae: 0.4614
Epoch 143/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0270 - mae: 0.13
20 - val_loss: 0.2127 - val_mae: 0.4612
Epoch 144/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0267 - mae: 0.13
11 - val loss: 0.2125 - val mae: 0.4610
Epoch 145/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0263 - mae: 0.13
```

```
02 - val_loss: 0.2124 - val_mae: 0.4608
Epoch 146/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0260 - mae: 0.12
94 - val_loss: 0.2123 - val_mae: 0.4608
Epoch 147/250
85 - val_loss: 0.2124 - val_mae: 0.4609
Epoch 148/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0252 - mae: 0.12
76 - val_loss: 0.2126 - val_mae: 0.4611
Epoch 149/250
66 - val_loss: 0.2130 - val_mae: 0.4615
Epoch 150/250
1/1 [============== ] - 0s 57ms/step - loss: 0.0246 - mae: 0.12
57 - val_loss: 0.2136 - val_mae: 0.4621
Epoch 151/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0242 - mae: 0.12
47 - val_loss: 0.2143 - val_mae: 0.4629
Epoch 152/250
37 - val_loss: 0.2151 - val_mae: 0.4638
Epoch 153/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0236 - mae: 0.12
26 - val_loss: 0.2161 - val_mae: 0.4648
Epoch 154/250
15 - val_loss: 0.2171 - val_mae: 0.4659
Epoch 155/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0229 - mae: 0.12
05 - val_loss: 0.2181 - val_mae: 0.4670
Epoch 156/250
93 - val_loss: 0.2192 - val_mae: 0.4682
Epoch 157/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0223 - mae: 0.11
82 - val_loss: 0.2202 - val_mae: 0.4693
Epoch 158/250
71 - val_loss: 0.2212 - val_mae: 0.4703
Epoch 159/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0217 - mae: 0.11
60 - val_loss: 0.2222 - val_mae: 0.4713
Epoch 160/250
1/1 [============== ] - 0s 62ms/step - loss: 0.0214 - mae: 0.11
50 - val_loss: 0.2230 - val_mae: 0.4723
Epoch 161/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0211 - mae: 0.11
39 - val_loss: 0.2239 - val_mae: 0.4732
Epoch 162/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0208 - mae: 0.11
29 - val loss: 0.2247 - val mae: 0.4740
Epoch 163/250
1/1 [===========] - 0s 30ms/step - loss: 0.0205 - mae: 0.11
19 - val loss: 0.2254 - val mae: 0.4748
Epoch 164/250
10 - val loss: 0.2262 - val mae: 0.4756
Epoch 165/250
00 - val loss: 0.2270 - val mae: 0.4764
Epoch 166/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0197 - mae: 0.10
91 - val_loss: 0.2278 - val_mae: 0.4773
Epoch 167/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0194 - mae: 0.10
83 - val loss: 0.2286 - val mae: 0.4782
Epoch 168/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0191 - mae: 0.10
```

```
75 - val_loss: 0.2296 - val_mae: 0.4791
Epoch 169/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0189 - mae: 0.10
67 - val_loss: 0.2306 - val_mae: 0.4802
Epoch 170/250
59 - val_loss: 0.2317 - val_mae: 0.4813
Epoch 171/250
51 - val_loss: 0.2329 - val_mae: 0.4826
Epoch 172/250
43 - val_loss: 0.2341 - val_mae: 0.4839
Epoch 173/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0179 - mae: 0.10
35 - val_loss: 0.2354 - val_mae: 0.4852
Epoch 174/250
1/1 [===========] - 0s 60ms/step - loss: 0.0176 - mae: 0.10
27 - val_loss: 0.2368 - val_mae: 0.4866
Epoch 175/250
19 - val_loss: 0.2382 - val_mae: 0.4881
Epoch 176/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0171 - mae: 0.10
10 - val_loss: 0.2397 - val_mae: 0.4896
Epoch 177/250
02 - val_loss: 0.2411 - val_mae: 0.4911
Epoch 178/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0167 - mae: 0.09
95 - val_loss: 0.2426 - val_mae: 0.4925
Epoch 179/250
87 - val_loss: 0.2440 - val_mae: 0.4940
Epoch 180/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0162 - mae: 0.09
79 - val_loss: 0.2455 - val_mae: 0.4955
Epoch 181/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0160 - mae: 0.09
71 - val_loss: 0.2469 - val_mae: 0.4969
Epoch 182/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0158 - mae: 0.09
63 - val_loss: 0.2483 - val_mae: 0.4983
Epoch 183/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0156 - mae: 0.09
55 - val_loss: 0.2497 - val_mae: 0.4997
Epoch 184/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0153 - mae: 0.09
48 - val_loss: 0.2512 - val_mae: 0.5012
Epoch 185/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0151 - mae: 0.09
40 - val loss: 0.2526 - val mae: 0.5026
Epoch 186/250
1/1 [===========] - 0s 35ms/step - loss: 0.0149 - mae: 0.09
33 - val loss: 0.2541 - val mae: 0.5041
Epoch 187/250
25 - val loss: 0.2556 - val mae: 0.5056
Epoch 188/250
18 - val loss: 0.2572 - val mae: 0.5072
Epoch 189/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0143 - mae: 0.09
11 - val_loss: 0.2589 - val_mae: 0.5088
Epoch 190/250
1/1 [============== ] - 0s 28ms/step - loss: 0.0141 - mae: 0.09
05 - val loss: 0.2605 - val mae: 0.5104
Epoch 191/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0139 - mae: 0.08
```

```
98 - val_loss: 0.2623 - val_mae: 0.5122
Epoch 192/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0137 - mae: 0.08
92 - val_loss: 0.2641 - val_mae: 0.5139
Epoch 193/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0136 - mae: 0.08
87 - val_loss: 0.2660 - val_mae: 0.5157
Epoch 194/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0134 - mae: 0.08
82 - val_loss: 0.2679 - val_mae: 0.5176
Epoch 195/250
1/1 [=========== ] - 0s 36ms/step - loss: 0.0132 - mae: 0.08
77 - val_loss: 0.2698 - val_mae: 0.5194
Epoch 196/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0130 - mae: 0.08
73 - val_loss: 0.2718 - val_mae: 0.5213
Epoch 197/250
1/1 [=========== ] - 0s 29ms/step - loss: 0.0128 - mae: 0.08
69 - val_loss: 0.2737 - val_mae: 0.5232
Epoch 198/250
65 - val_loss: 0.2757 - val_mae: 0.5251
Epoch 199/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0125 - mae: 0.08
61 - val_loss: 0.2777 - val_mae: 0.5270
Epoch 200/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0123 - mae: 0.08
56 - val_loss: 0.2797 - val_mae: 0.5289
Epoch 201/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0121 - mae: 0.08
52 - val_loss: 0.2818 - val_mae: 0.5308
Epoch 202/250
48 - val_loss: 0.2838 - val_mae: 0.5327
Epoch 203/250
1/1 [============== ] - 0s 49ms/step - loss: 0.0118 - mae: 0.08
43 - val_loss: 0.2858 - val_mae: 0.5346
Epoch 204/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0116 - mae: 0.08
39 - val_loss: 0.2879 - val_mae: 0.5365
Epoch 205/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0115 - mae: 0.08
34 - val_loss: 0.2899 - val_mae: 0.5384
Epoch 206/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0113 - mae: 0.08
30 - val_loss: 0.2920 - val_mae: 0.5404
Epoch 207/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0111 - mae: 0.08
25 - val_loss: 0.2941 - val_mae: 0.5423
Epoch 208/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0110 - mae: 0.08
20 - val loss: 0.2963 - val mae: 0.5443
Epoch 209/250
1/1 [===========] - 0s 38ms/step - loss: 0.0108 - mae: 0.08
16 - val loss: 0.2985 - val mae: 0.5463
Epoch 210/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0107 - mae: 0.08
11 - val loss: 0.3007 - val mae: 0.5484
Epoch 211/250
06 - val loss: 0.3030 - val mae: 0.5504
Epoch 212/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0104 - mae: 0.08
01 - val_loss: 0.3053 - val_mae: 0.5525
Epoch 213/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0102 - mae: 0.07
96 - val loss: 0.3076 - val mae: 0.5546
Epoch 214/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0101 - mae: 0.07
```

```
91 - val_loss: 0.3099 - val_mae: 0.5567
Epoch 215/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0099 - mae: 0.07
86 - val_loss: 0.3123 - val_mae: 0.5588
Epoch 216/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0098 - mae: 0.07
81 - val_loss: 0.3147 - val_mae: 0.5609
Epoch 217/250
76 - val_loss: 0.3171 - val_mae: 0.5631
Epoch 218/250
71 - val_loss: 0.3195 - val_mae: 0.5652
Epoch 219/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0094 - mae: 0.07
65 - val_loss: 0.3219 - val_mae: 0.5673
Epoch 220/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0092 - mae: 0.07
60 - val_loss: 0.3243 - val_mae: 0.5695
Epoch 221/250
55 - val_loss: 0.3267 - val_mae: 0.5716
Epoch 222/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0089 - mae: 0.07
49 - val_loss: 0.3292 - val_mae: 0.5737
Epoch 223/250
44 - val_loss: 0.3316 - val_mae: 0.5759
Epoch 224/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0087 - mae: 0.07
38 - val_loss: 0.3341 - val_mae: 0.5780
Epoch 225/250
33 - val_loss: 0.3366 - val_mae: 0.5802
Epoch 226/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0084 - mae: 0.07
27 - val_loss: 0.3391 - val_mae: 0.5823
Epoch 227/250
22 - val_loss: 0.3416 - val_mae: 0.5844
Epoch 228/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0081 - mae: 0.07
16 - val_loss: 0.3441 - val_mae: 0.5866
Epoch 229/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0080 - mae: 0.07
11 - val_loss: 0.3466 - val_mae: 0.5888
Epoch 230/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0079 - mae: 0.07
05 - val_loss: 0.3492 - val_mae: 0.5909
Epoch 231/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0078 - mae: 0.06
99 - val loss: 0.3517 - val mae: 0.5931
Epoch 232/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0076 - mae: 0.06
94 - val loss: 0.3543 - val mae: 0.5952
Epoch 233/250
88 - val loss: 0.3568 - val mae: 0.5973
Epoch 234/250
82 - val loss: 0.3594 - val mae: 0.5995
Epoch 235/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0073 - mae: 0.06
76 - val_loss: 0.3619 - val_mae: 0.6016
Epoch 236/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0071 - mae: 0.06
71 - val loss: 0.3645 - val mae: 0.6037
Epoch 237/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0070 - mae: 0.06
```

```
65 - val_loss: 0.3670 - val_mae: 0.6058
Epoch 238/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0069 - mae: 0.06
59 - val_loss: 0.3696 - val_mae: 0.6080
Epoch 239/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0068 - mae: 0.06
53 - val_loss: 0.3722 - val_mae: 0.6101
Epoch 240/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0067 - mae: 0.06
48 - val_loss: 0.3748 - val_mae: 0.6122
Epoch 241/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0066 - mae: 0.06
42 - val_loss: 0.3774 - val_mae: 0.6143
Epoch 242/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0065 - mae: 0.06
36 - val_loss: 0.3800 - val_mae: 0.6164
Epoch 243/250
1/1 [===========] - 0s 41ms/step - loss: 0.0064 - mae: 0.06
30 - val_loss: 0.3826 - val_mae: 0.6186
Epoch 244/250
25 - val_loss: 0.3852 - val_mae: 0.6207
Epoch 245/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0062 - mae: 0.06
19 - val_loss: 0.3878 - val_mae: 0.6228
Epoch 246/250
13 - val_loss: 0.3905 - val_mae: 0.6249
Epoch 247/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0059 - mae: 0.06
07 - val_loss: 0.3931 - val_mae: 0.6270
Epoch 248/250
02 - val_loss: 0.3957 - val_mae: 0.6290
Epoch 249/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0057 - mae: 0.05
96 - val_loss: 0.3983 - val_mae: 0.6311
Epoch 250/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0056 - mae: 0.05
90 - val_loss: 0.4009 - val_mae: 0.6332
Epoch 1/250
1/1 [============== ] - 1s 852ms/step - loss: 12.1080 - mae: 3.
4081 - val_loss: 9.3601 - val_mae: 3.0594
Epoch 2/250
1/1 [============= ] - 0s 30ms/step - loss: 10.9890 - mae: 3.2
483 - val_loss: 8.5642 - val_mae: 2.9265
Epoch 3/250
1/1 [============= ] - 0s 35ms/step - loss: 9.9750 - mae: 3.09
34 - val_loss: 7.8050 - val_mae: 2.7937
Epoch 4/250
08 - val loss: 7.0448 - val mae: 2.6542
Epoch 5/250
1/1 [===========] - 0s 38ms/step - loss: 8.1664 - mae: 2.78
70 - val loss: 6.2619 - val mae: 2.5024
Epoch 6/250
1/1 [============ ] - 0s 32ms/step - loss: 7.3360 - mae: 2.62
90 - val loss: 5.4695 - val mae: 2.3387
Epoch 7/250
50 - val loss: 4.6755 - val mae: 2.1623
Epoch 8/250
1/1 [============== ] - 0s 29ms/step - loss: 5.7884 - mae: 2.29
36 - val_loss: 3.8882 - val_mae: 1.9719
Epoch 9/250
39 - val loss: 3.1163 - val mae: 1.7653
Epoch 10/250
1/1 [============== ] - 0s 35ms/step - loss: 4.3956 - mae: 1.92
```

```
45 - val_loss: 2.3730 - val_mae: 1.5405
Epoch 11/250
53 - val_loss: 1.6782 - val_mae: 1.2955
Epoch 12/250
11 - val_loss: 1.0641 - val_mae: 1.0316
Epoch 13/250
32 - val_loss: 0.5607 - val_mae: 0.7488
Epoch 14/250
06 - val_loss: 0.2009 - val_mae: 0.4482
Epoch 15/250
01 - val_loss: 0.0181 - val_mae: 0.1346
Epoch 16/250
14 - val_loss: 0.0335 - val_mae: 0.1831
Epoch 17/250
36 - val loss: 0.2429 - val mae: 0.4928
Epoch 18/250
1/1 [============= ] - 0s 39ms/step - loss: 1.1118 - mae: 0.93
63 - val_loss: 0.6124 - val_mae: 0.7825
Epoch 19/250
95 - val_loss: 1.0830 - val_mae: 1.0407
Epoch 20/250
1/1 [============= ] - 0s 37ms/step - loss: 0.7281 - mae: 0.70
89 - val_loss: 1.5854 - val_mae: 1.2591
Epoch 21/250
51 - val_loss: 2.0556 - val_mae: 1.4337
Epoch 22/250
1/1 [============= ] - 0s 31ms/step - loss: 0.4724 - mae: 0.56
71 - val_loss: 2.4444 - val_mae: 1.5635
Epoch 23/250
21 - val_loss: 2.7224 - val_mae: 1.6500
Epoch 24/250
1/1 [============== ] - 0s 30ms/step - loss: 0.3851 - mae: 0.48
52 - val_loss: 2.8788 - val_mae: 1.6967
Epoch 25/250
1/1 [============== ] - 0s 30ms/step - loss: 0.3898 - mae: 0.51
24 - val_loss: 2.9187 - val_mae: 1.7084
Epoch 26/250
1/1 [============= ] - 0s 29ms/step - loss: 0.4094 - mae: 0.54
08 - val_loss: 2.8586 - val_mae: 1.6907
Epoch 27/250
1/1 [============ ] - 0s 31ms/step - loss: 0.4309 - mae: 0.56
17 - val loss: 2.7222 - val mae: 1.6499
Epoch 28/250
1/1 [===========] - 0s 31ms/step - loss: 0.4450 - mae: 0.58
08 - val loss: 2.5357 - val mae: 1.5924
Epoch 29/250
1/1 [============ ] - 0s 42ms/step - loss: 0.4471 - mae: 0.58
42 - val loss: 2.3240 - val mae: 1.5245
Epoch 30/250
44 - val loss: 2.1078 - val mae: 1.4518
Epoch 31/250
1/1 [============= ] - 0s 39ms/step - loss: 0.4147 - mae: 0.55
44 - val_loss: 1.9024 - val_mae: 1.3793
Epoch 32/250
1/1 [============ ] - 0s 35ms/step - loss: 0.3854 - mae: 0.52
72 - val_loss: 1.7176 - val_mae: 1.3106
Epoch 33/250
1/1 [============== ] - 0s 35ms/step - loss: 0.3517 - mae: 0.49
```

```
69 - val_loss: 1.5582 - val_mae: 1.2483
Epoch 34/250
97 - val_loss: 1.4254 - val_mae: 1.1939
Epoch 35/250
1/1 [============= ] - 0s 44ms/step - loss: 0.2823 - mae: 0.44
09 - val_loss: 1.3178 - val_mae: 1.1480
Epoch 36/250
99 - val_loss: 1.2326 - val_mae: 1.1102
Epoch 37/250
90 - val_loss: 1.1658 - val_mae: 1.0797
Epoch 38/250
11 - val_loss: 1.1130 - val_mae: 1.0550
Epoch 39/250
1/1 [============ ] - 0s 34ms/step - loss: 0.1811 - mae: 0.34
05 - val_loss: 1.0699 - val_mae: 1.0343
Epoch 40/250
99 - val_loss: 1.0318 - val_mae: 1.0158
Epoch 41/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1603 - mae: 0.31
90 - val_loss: 0.9950 - val_mae: 0.9975
Epoch 42/250
28 - val_loss: 0.9561 - val_mae: 0.9778
Epoch 43/250
1/1 [============== ] - 0s 35ms/step - loss: 0.1552 - mae: 0.30
86 - val_loss: 0.9131 - val_mae: 0.9556
Epoch 44/250
02 - val_loss: 0.8651 - val_mae: 0.9301
Epoch 45/250
1/1 [============== ] - 0s 37ms/step - loss: 0.1553 - mae: 0.31
37 - val_loss: 0.8124 - val_mae: 0.9013
Epoch 46/250
29 - val_loss: 0.7565 - val_mae: 0.8698
Epoch 47/250
1/1 [============= ] - 0s 35ms/step - loss: 0.1506 - mae: 0.30
81 - val_loss: 0.6998 - val_mae: 0.8365
Epoch 48/250
1/1 [============== ] - 0s 68ms/step - loss: 0.1452 - mae: 0.29
97 - val_loss: 0.6447 - val_mae: 0.8030
Epoch 49/250
1/1 [============= ] - 0s 34ms/step - loss: 0.1383 - mae: 0.29
32 - val_loss: 0.5938 - val_mae: 0.7706
Epoch 50/250
1/1 [============= ] - 0s 35ms/step - loss: 0.1304 - mae: 0.28
57 - val loss: 0.5492 - val mae: 0.7411
Epoch 51/250
1/1 [===========] - 0s 37ms/step - loss: 0.1223 - mae: 0.27
77 - val loss: 0.5123 - val mae: 0.7158
Epoch 52/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1147 - mae: 0.27
00 - val loss: 0.4842 - val mae: 0.6958
Epoch 53/250
48 - val loss: 0.4652 - val mae: 0.6820
Epoch 54/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1017 - mae: 0.25
97 - val loss: 0.4553 - val mae: 0.6747
Epoch 55/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0966 - mae: 0.25
56 - val loss: 0.4541 - val mae: 0.6738
Epoch 56/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0922 - mae: 0.25
```

```
06 - val_loss: 0.4609 - val_mae: 0.6789
Epoch 57/250
48 - val_loss: 0.4747 - val_mae: 0.6890
Epoch 58/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0852 - mae: 0.23
98 - val_loss: 0.4942 - val_mae: 0.7030
Epoch 59/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0825 - mae: 0.23
47 - val_loss: 0.5176 - val_mae: 0.7194
Epoch 60/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0804 - mae: 0.22
90 - val_loss: 0.5427 - val_mae: 0.7367
Epoch 61/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0789 - mae: 0.22
56 - val_loss: 0.5672 - val_mae: 0.7531
Epoch 62/250
46 - val_loss: 0.5884 - val_mae: 0.7671
Epoch 63/250
36 - val_loss: 0.6039 - val_mae: 0.7771
Epoch 64/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0769 - mae: 0.22
40 - val_loss: 0.6117 - val_mae: 0.7821
Epoch 65/250
38 - val_loss: 0.6104 - val_mae: 0.7813
Epoch 66/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0757 - mae: 0.22
28 - val_loss: 0.5997 - val_mae: 0.7744
Epoch 67/250
05 - val_loss: 0.5800 - val_mae: 0.7616
Epoch 68/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0731 - mae: 0.21
71 - val_loss: 0.5529 - val_mae: 0.7435
Epoch 69/250
27 - val_loss: 0.5202 - val_mae: 0.7212
Epoch 70/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0689 - mae: 0.20
75 - val_loss: 0.4843 - val_mae: 0.6959
Epoch 71/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0667 - mae: 0.20
22 - val_loss: 0.4476 - val_mae: 0.6690
Epoch 72/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0645 - mae: 0.19
73 - val_loss: 0.4119 - val_mae: 0.6418
Epoch 73/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0626 - mae: 0.19
25 - val loss: 0.3790 - val mae: 0.6156
Epoch 74/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0610 - mae: 0.18
79 - val loss: 0.3499 - val mae: 0.5915
Epoch 75/250
50 - val loss: 0.3251 - val mae: 0.5702
Epoch 76/250
31 - val loss: 0.3050 - val mae: 0.5523
Epoch 77/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0576 - mae: 0.18
17 - val loss: 0.2893 - val mae: 0.5379
Epoch 78/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0568 - mae: 0.18
09 - val loss: 0.2778 - val mae: 0.5270
Epoch 79/250
1/1 [============== ] - 0s 50ms/step - loss: 0.0560 - mae: 0.18
```

```
05 - val_loss: 0.2698 - val_mae: 0.5194
Epoch 80/250
96 - val_loss: 0.2648 - val_mae: 0.5146
Epoch 81/250
85 - val_loss: 0.2621 - val_mae: 0.5120
Epoch 82/250
75 - val_loss: 0.2610 - val_mae: 0.5109
Epoch 83/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0530 - mae: 0.17
61 - val_loss: 0.2608 - val_mae: 0.5107
Epoch 84/250
45 - val_loss: 0.2608 - val_mae: 0.5107
Epoch 85/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0515 - mae: 0.17
26 - val_loss: 0.2605 - val_mae: 0.5103
Epoch 86/250
07 - val loss: 0.2594 - val mae: 0.5093
Epoch 87/250
1/1 [============== ] - 0s 63ms/step - loss: 0.0499 - mae: 0.16
90 - val_loss: 0.2574 - val_mae: 0.5073
Epoch 88/250
71 - val_loss: 0.2543 - val_mae: 0.5043
Epoch 89/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0482 - mae: 0.16
53 - val_loss: 0.2502 - val_mae: 0.5002
Epoch 90/250
37 - val_loss: 0.2454 - val_mae: 0.4953
Epoch 91/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0466 - mae: 0.16
23 - val_loss: 0.2399 - val_mae: 0.4898
Epoch 92/250
08 - val_loss: 0.2343 - val_mae: 0.4841
Epoch 93/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0451 - mae: 0.15
93 - val_loss: 0.2287 - val_mae: 0.4783
Epoch 94/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0444 - mae: 0.15
78 - val_loss: 0.2234 - val_mae: 0.4727
Epoch 95/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0438 - mae: 0.15
63 - val_loss: 0.2186 - val_mae: 0.4676
Epoch 96/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0432 - mae: 0.15
48 - val loss: 0.2143 - val mae: 0.4630
Epoch 97/250
1/1 [===========] - 0s 34ms/step - loss: 0.0426 - mae: 0.15
33 - val loss: 0.2107 - val mae: 0.4590
Epoch 98/250
18 - val loss: 0.2075 - val mae: 0.4555
Epoch 99/250
04 - val loss: 0.2047 - val mae: 0.4524
Epoch 100/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0408 - mae: 0.14
94 - val_loss: 0.2021 - val_mae: 0.4495
Epoch 101/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0402 - mae: 0.14
86 - val loss: 0.1995 - val mae: 0.4467
Epoch 102/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0397 - mae: 0.14
```

```
78 - val_loss: 0.1968 - val_mae: 0.4436
Epoch 103/250
1/1 [============= ] - 0s 56ms/step - loss: 0.0391 - mae: 0.14
69 - val_loss: 0.1938 - val_mae: 0.4402
Epoch 104/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0385 - mae: 0.14
60 - val_loss: 0.1904 - val_mae: 0.4363
Epoch 105/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0380 - mae: 0.14
50 - val_loss: 0.1865 - val_mae: 0.4319
Epoch 106/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0374 - mae: 0.14
42 - val_loss: 0.1822 - val_mae: 0.4268
Epoch 107/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0369 - mae: 0.14
33 - val_loss: 0.1774 - val_mae: 0.4212
Epoch 108/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0364 - mae: 0.14
26 - val_loss: 0.1724 - val_mae: 0.4152
Epoch 109/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0358 - mae: 0.14
19 - val_loss: 0.1673 - val_mae: 0.4090
Epoch 110/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0353 - mae: 0.14
12 - val_loss: 0.1621 - val_mae: 0.4026
Epoch 111/250
05 - val_loss: 0.1571 - val_mae: 0.3963
Epoch 112/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0344 - mae: 0.13
98 - val_loss: 0.1523 - val_mae: 0.3903
Epoch 113/250
90 - val_loss: 0.1479 - val_mae: 0.3846
Epoch 114/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0335 - mae: 0.13
82 - val_loss: 0.1439 - val_mae: 0.3793
Epoch 115/250
73 - val_loss: 0.1403 - val_mae: 0.3745
Epoch 116/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0325 - mae: 0.13
64 - val_loss: 0.1371 - val_mae: 0.3702
Epoch 117/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0321 - mae: 0.13
55 - val_loss: 0.1342 - val_mae: 0.3664
Epoch 118/250
1/1 [============= ] - 0s 82ms/step - loss: 0.0316 - mae: 0.13
46 - val_loss: 0.1317 - val_mae: 0.3629
Epoch 119/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0312 - mae: 0.13
36 - val loss: 0.1293 - val mae: 0.3596
Epoch 120/250
1/1 [===========] - 0s 35ms/step - loss: 0.0308 - mae: 0.13
26 - val loss: 0.1271 - val mae: 0.3565
Epoch 121/250
17 - val loss: 0.1250 - val mae: 0.3535
Epoch 122/250
07 - val loss: 0.1228 - val mae: 0.3505
Epoch 123/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0295 - mae: 0.12
98 - val_loss: 0.1206 - val_mae: 0.3473
Epoch 124/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0291 - mae: 0.12
88 - val loss: 0.1184 - val mae: 0.3441
Epoch 125/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0287 - mae: 0.12
```

```
79 - val_loss: 0.1160 - val_mae: 0.3406
Epoch 126/250
1/1 [============= ] - 0s 56ms/step - loss: 0.0283 - mae: 0.12
72 - val_loss: 0.1136 - val_mae: 0.3370
Epoch 127/250
65 - val_loss: 0.1111 - val_mae: 0.3333
Epoch 128/250
58 - val_loss: 0.1086 - val_mae: 0.3295
Epoch 129/250
51 - val_loss: 0.1060 - val_mae: 0.3255
Epoch 130/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0267 - mae: 0.12
43 - val_loss: 0.1034 - val_mae: 0.3215
Epoch 131/250
1/1 [===========] - 0s 32ms/step - loss: 0.0263 - mae: 0.12
36 - val_loss: 0.1008 - val_mae: 0.3175
Epoch 132/250
29 - val_loss: 0.0982 - val_mae: 0.3134
Epoch 133/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0255 - mae: 0.12
22 - val_loss: 0.0956 - val_mae: 0.3092
Epoch 134/250
14 - val_loss: 0.0929 - val_mae: 0.3049
Epoch 135/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0247 - mae: 0.12
06 - val_loss: 0.0903 - val_mae: 0.3005
Epoch 136/250
99 - val_loss: 0.0876 - val_mae: 0.2959
Epoch 137/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0239 - mae: 0.11
91 - val_loss: 0.0848 - val_mae: 0.2913
Epoch 138/250
82 - val_loss: 0.0820 - val_mae: 0.2864
Epoch 139/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0231 - mae: 0.11
74 - val_loss: 0.0792 - val_mae: 0.2815
Epoch 140/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0227 - mae: 0.11
65 - val_loss: 0.0764 - val_mae: 0.2764
Epoch 141/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0223 - mae: 0.11
57 - val_loss: 0.0736 - val_mae: 0.2712
Epoch 142/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0219 - mae: 0.11
48 - val loss: 0.0708 - val mae: 0.2660
Epoch 143/250
1/1 [============] - 0s 35ms/step - loss: 0.0215 - mae: 0.11
38 - val loss: 0.0680 - val mae: 0.2608
Epoch 144/250
29 - val loss: 0.0654 - val mae: 0.2556
Epoch 145/250
20 - val loss: 0.0628 - val mae: 0.2506
Epoch 146/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0204 - mae: 0.11
10 - val_loss: 0.0603 - val_mae: 0.2456
Epoch 147/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0200 - mae: 0.11
01 - val loss: 0.0580 - val mae: 0.2408
Epoch 148/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0196 - mae: 0.10
```

```
92 - val_loss: 0.0557 - val_mae: 0.2360
Epoch 149/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0192 - mae: 0.10
83 - val_loss: 0.0535 - val_mae: 0.2313
Epoch 150/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0188 - mae: 0.10
73 - val_loss: 0.0514 - val_mae: 0.2266
Epoch 151/250
63 - val_loss: 0.0493 - val_mae: 0.2219
Epoch 152/250
1/1 [============] - 0s 44ms/step - loss: 0.0180 - mae: 0.10
53 - val_loss: 0.0472 - val_mae: 0.2172
Epoch 153/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0175 - mae: 0.10
43 - val_loss: 0.0451 - val_mae: 0.2123
Epoch 154/250
1/1 [============ ] - 0s 44ms/step - loss: 0.0171 - mae: 0.10
33 - val_loss: 0.0429 - val_mae: 0.2072
Epoch 155/250
23 - val_loss: 0.0408 - val_mae: 0.2020
Epoch 156/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0163 - mae: 0.10
12 - val_loss: 0.0386 - val_mae: 0.1965
Epoch 157/250
01 - val_loss: 0.0364 - val_mae: 0.1909
Epoch 158/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0155 - mae: 0.09
90 - val_loss: 0.0342 - val_mae: 0.1850
Epoch 159/250
79 - val_loss: 0.0320 - val_mae: 0.1789
Epoch 160/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0147 - mae: 0.09
67 - val_loss: 0.0298 - val_mae: 0.1727
Epoch 161/250
55 - val_loss: 0.0277 - val_mae: 0.1663
Epoch 162/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0140 - mae: 0.09
43 - val_loss: 0.0255 - val_mae: 0.1598
Epoch 163/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0136 - mae: 0.09
31 - val_loss: 0.0235 - val_mae: 0.1532
Epoch 164/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0132 - mae: 0.09
19 - val_loss: 0.0215 - val_mae: 0.1466
Epoch 165/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0128 - mae: 0.09
07 - val loss: 0.0195 - val mae: 0.1398
Epoch 166/250
1/1 [===========] - 0s 30ms/step - loss: 0.0125 - mae: 0.08
95 - val loss: 0.0177 - val mae: 0.1330
Epoch 167/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0121 - mae: 0.08
84 - val loss: 0.0159 - val mae: 0.1261
Epoch 168/250
74 - val loss: 0.0142 - val mae: 0.1190
Epoch 169/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0115 - mae: 0.08
65 - val_loss: 0.0125 - val_mae: 0.1119
Epoch 170/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0112 - mae: 0.08
56 - val loss: 0.0110 - val mae: 0.1047
Epoch 171/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0109 - mae: 0.08
```

```
47 - val_loss: 0.0095 - val_mae: 0.0975
Epoch 172/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0106 - mae: 0.08
38 - val_loss: 0.0081 - val_mae: 0.0902
Epoch 173/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0103 - mae: 0.08
29 - val_loss: 0.0069 - val_mae: 0.0830
Epoch 174/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0100 - mae: 0.08
21 - val_loss: 0.0057 - val_mae: 0.0758
Epoch 175/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0098 - mae: 0.08
12 - val_loss: 0.0047 - val_mae: 0.0688
Epoch 176/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0095 - mae: 0.08
03 - val_loss: 0.0038 - val_mae: 0.0619
Epoch 177/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0093 - mae: 0.07
93 - val_loss: 0.0030 - val_mae: 0.0551
Epoch 178/250
84 - val_loss: 0.0024 - val_mae: 0.0486
Epoch 179/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0088 - mae: 0.07
75 - val_loss: 0.0018 - val_mae: 0.0423
Epoch 180/250
66 - val_loss: 0.0013 - val_mae: 0.0362
Epoch 181/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0084 - mae: 0.07
56 - val_loss: 9.1118e-04 - val_mae: 0.0302
Epoch 182/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0081 - mae: 0.07
47 - val_loss: 5.9391e-04 - val_mae: 0.0244
Epoch 183/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0079 - mae: 0.07
38 - val_loss: 3.4912e-04 - val_mae: 0.0187
Epoch 184/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0077 - mae: 0.07
29 - val_loss: 1.7191e-04 - val_mae: 0.0131
Epoch 185/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0075 - mae: 0.07
20 - val_loss: 5.8404e-05 - val_mae: 0.0076
Epoch 186/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0074 - mae: 0.07
11 - val_loss: 5.1810e-06 - val_mae: 0.0023
Epoch 187/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0072 - mae: 0.07
02 - val_loss: 8.8789e-06 - val_mae: 0.0030
Epoch 188/250
1/1 [============ ] - 0s 42ms/step - loss: 0.0070 - mae: 0.06
93 - val loss: 6.5784e-05 - val mae: 0.0081
Epoch 189/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0068 - mae: 0.06
85 - val loss: 1.7161e-04 - val mae: 0.0131
Epoch 190/250
1/1 [============ ] - 0s 51ms/step - loss: 0.0067 - mae: 0.06
76 - val loss: 3.2143e-04 - val mae: 0.0179
Epoch 191/250
68 - val loss: 5.0990e-04 - val mae: 0.0226
Epoch 192/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0064 - mae: 0.06
59 - val_loss: 7.3146e-04 - val_mae: 0.0270
Epoch 193/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0062 - mae: 0.06
51 - val_loss: 9.8077e-04 - val_mae: 0.0313
Epoch 194/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0061 - mae: 0.06
```

```
43 - val_loss: 0.0013 - val_mae: 0.0354
Epoch 195/250
1/1 [============ ] - 0s 47ms/step - loss: 0.0059 - mae: 0.06
35 - val_loss: 0.0015 - val_mae: 0.0393
Epoch 196/250
1/1 [============ ] - 0s 48ms/step - loss: 0.0058 - mae: 0.06
27 - val_loss: 0.0019 - val_mae: 0.0430
Epoch 197/250
1/1 [============= ] - 0s 47ms/step - loss: 0.0057 - mae: 0.06
21 - val_loss: 0.0022 - val_mae: 0.0466
Epoch 198/250
1/1 [=========== ] - 0s 44ms/step - loss: 0.0055 - mae: 0.06
15 - val_loss: 0.0025 - val_mae: 0.0500
Epoch 199/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0054 - mae: 0.06
09 - val_loss: 0.0028 - val_mae: 0.0533
Epoch 200/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0053 - mae: 0.06
04 - val_loss: 0.0032 - val_mae: 0.0564
Epoch 201/250
98 - val_loss: 0.0035 - val_mae: 0.0595
Epoch 202/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0050 - mae: 0.05
92 - val_loss: 0.0039 - val_mae: 0.0624
Epoch 203/250
86 - val_loss: 0.0042 - val_mae: 0.0651
Epoch 204/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0048 - mae: 0.05
80 - val_loss: 0.0046 - val_mae: 0.0678
Epoch 205/250
74 - val_loss: 0.0049 - val_mae: 0.0703
Epoch 206/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0046 - mae: 0.05
68 - val_loss: 0.0053 - val_mae: 0.0727
Epoch 207/250
62 - val_loss: 0.0056 - val_mae: 0.0750
Epoch 208/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0044 - mae: 0.05
56 - val_loss: 0.0060 - val_mae: 0.0772
Epoch 209/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0043 - mae: 0.05
50 - val_loss: 0.0063 - val_mae: 0.0793
Epoch 210/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0042 - mae: 0.05
44 - val_loss: 0.0066 - val_mae: 0.0814
Epoch 211/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0041 - mae: 0.05
39 - val loss: 0.0069 - val mae: 0.0833
Epoch 212/250
1/1 [===========] - 0s 41ms/step - loss: 0.0041 - mae: 0.05
33 - val loss: 0.0073 - val mae: 0.0853
Epoch 213/250
27 - val loss: 0.0076 - val mae: 0.0871
Epoch 214/250
22 - val loss: 0.0079 - val mae: 0.0890
Epoch 215/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0038 - mae: 0.05
16 - val_loss: 0.0082 - val_mae: 0.0908
Epoch 216/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0037 - mae: 0.05
11 - val loss: 0.0086 - val mae: 0.0925
Epoch 217/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0037 - mae: 0.05
```

```
06 - val_loss: 0.0089 - val_mae: 0.0943
Epoch 218/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0036 - mae: 0.05
00 - val_loss: 0.0092 - val_mae: 0.0960
Epoch 219/250
1/1 [============= ] - 0s 49ms/step - loss: 0.0035 - mae: 0.04
95 - val_loss: 0.0095 - val_mae: 0.0977
Epoch 220/250
90 - val_loss: 0.0099 - val_mae: 0.0993
Epoch 221/250
1/1 [============ ] - 0s 51ms/step - loss: 0.0034 - mae: 0.04
85 - val_loss: 0.0102 - val_mae: 0.1009
Epoch 222/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0033 - mae: 0.04
80 - val_loss: 0.0105 - val_mae: 0.1025
Epoch 223/250
1/1 [============] - 0s 29ms/step - loss: 0.0033 - mae: 0.04
75 - val_loss: 0.0108 - val_mae: 0.1041
Epoch 224/250
70 - val_loss: 0.0112 - val_mae: 0.1056
Epoch 225/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0031 - mae: 0.04
65 - val_loss: 0.0115 - val_mae: 0.1071
Epoch 226/250
61 - val_loss: 0.0118 - val_mae: 0.1086
Epoch 227/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0030 - mae: 0.04
56 - val_loss: 0.0121 - val_mae: 0.1101
Epoch 228/250
52 - val_loss: 0.0124 - val_mae: 0.1115
Epoch 229/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0029 - mae: 0.04
48 - val_loss: 0.0127 - val_mae: 0.1129
Epoch 230/250
44 - val_loss: 0.0131 - val_mae: 0.1142
Epoch 231/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0028 - mae: 0.04
41 - val_loss: 0.0134 - val_mae: 0.1156
Epoch 232/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0028 - mae: 0.04
37 - val_loss: 0.0137 - val_mae: 0.1169
Epoch 233/250
1/1 [============= ] - 0s 50ms/step - loss: 0.0027 - mae: 0.04
33 - val_loss: 0.0140 - val_mae: 0.1182
Epoch 234/250
1/1 [=============] - 0s 44ms/step - loss: 0.0027 - mae: 0.04
30 - val loss: 0.0143 - val mae: 0.1194
Epoch 235/250
1/1 [===========] - 0s 47ms/step - loss: 0.0026 - mae: 0.04
26 - val loss: 0.0146 - val mae: 0.1207
Epoch 236/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0026 - mae: 0.04
23 - val loss: 0.0149 - val mae: 0.1219
Epoch 237/250
19 - val loss: 0.0151 - val mae: 0.1231
Epoch 238/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0025 - mae: 0.04
16 - val_loss: 0.0154 - val_mae: 0.1243
Epoch 239/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0025 - mae: 0.04
13 - val loss: 0.0157 - val mae: 0.1254
Epoch 240/250
1/1 [=============== ] - 0s 30ms/step - loss: 0.0024 - mae: 0.04
```

```
09 - val_loss: 0.0160 - val_mae: 0.1265
Epoch 241/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0024 - mae: 0.04
06 - val_loss: 0.0163 - val_mae: 0.1277
Epoch 242/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0023 - mae: 0.04
03 - val_loss: 0.0166 - val_mae: 0.1288
Epoch 243/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0023 - mae: 0.03
99 - val_loss: 0.0169 - val_mae: 0.1298
Epoch 244/250
1/1 [============ ] - 0s 50ms/step - loss: 0.0023 - mae: 0.03
96 - val_loss: 0.0171 - val_mae: 0.1309
Epoch 245/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0022 - mae: 0.03
93 - val_loss: 0.0174 - val_mae: 0.1319
Epoch 246/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0022 - mae: 0.03
90 - val_loss: 0.0177 - val_mae: 0.1329
Epoch 247/250
87 - val_loss: 0.0179 - val_mae: 0.1339
Epoch 248/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0021 - mae: 0.03
84 - val_loss: 0.0182 - val_mae: 0.1348
Epoch 249/250
81 - val_loss: 0.0184 - val_mae: 0.1358
Epoch 250/250
1/1 [============ ] - 0s 46ms/step - loss: 0.0021 - mae: 0.03
79 - val_loss: 0.0187 - val_mae: 0.1367
Epoch 1/250
1/1 [============== ] - 1s 818ms/step - loss: 14.3440 - mae: 3.
7359 - val_loss: 13.5910 - val_mae: 3.6866
Epoch 2/250
1/1 [============== ] - 0s 34ms/step - loss: 12.7294 - mae: 3.5
321 - val_loss: 13.8834 - val_mae: 3.7260
Epoch 3/250
1/1 [============== ] - 0s 33ms/step - loss: 11.3783 - mae: 3.3
465 - val_loss: 14.0955 - val_mae: 3.7544
Epoch 4/250
1/1 [============== ] - 0s 34ms/step - loss: 10.2614 - mae: 3.1
802 - val_loss: 14.2061 - val_mae: 3.7691
Epoch 5/250
1/1 [============== ] - 0s 33ms/step - loss: 9.3122 - mae: 3.02
76 - val_loss: 14.2052 - val_mae: 3.7690
Epoch 6/250
07 - val_loss: 14.1018 - val_mae: 3.7552
Epoch 7/250
1/1 [============= ] - 0s 32ms/step - loss: 7.6993 - mae: 2.73
95 - val loss: 13.8980 - val mae: 3.7280
Epoch 8/250
1/1 [============ ] - 0s 30ms/step - loss: 7.0029 - mae: 2.60
18 - val loss: 13.5962 - val mae: 3.6873
Epoch 9/250
1/1 [============= ] - 0s 30ms/step - loss: 6.3526 - mae: 2.46
50 - val loss: 13.1931 - val mae: 3.6322
Epoch 10/250
61 - val loss: 12.6862 - val mae: 3.5618
Epoch 11/250
1/1 [============= ] - 0s 30ms/step - loss: 5.1283 - mae: 2.18
24 - val_loss: 12.0724 - val_mae: 3.4745
Epoch 12/250
1/1 [============= ] - 0s 31ms/step - loss: 4.5370 - mae: 2.03
21 - val_loss: 11.3465 - val_mae: 3.3685
Epoch 13/250
1/1 [============== ] - 0s 33ms/step - loss: 3.9581 - mae: 1.87
```

```
42 - val_loss: 10.5081 - val_mae: 3.2416
Epoch 14/250
79 - val_loss: 9.5636 - val_mae: 3.0925
Epoch 15/250
27 - val_loss: 8.5227 - val_mae: 2.9194
Epoch 16/250
54 - val_loss: 7.4115 - val_mae: 2.7224
Epoch 17/250
95 - val_loss: 6.2869 - val_mae: 2.5074
Epoch 18/250
60 - val_loss: 5.1818 - val_mae: 2.2764
Epoch 19/250
1/1 [============= ] - 0s 33ms/step - loss: 1.0444 - mae: 0.84
94 - val_loss: 4.1269 - val_mae: 2.0315
Epoch 20/250
13 - val_loss: 3.1525 - val_mae: 1.7755
Epoch 21/250
1/1 [============== ] - 0s 31ms/step - loss: 0.5304 - mae: 0.56
40 - val_loss: 2.2861 - val_mae: 1.5120
Epoch 22/250
94 - val_loss: 1.5533 - val_mae: 1.2463
Epoch 23/250
1/1 [============== ] - 0s 31ms/step - loss: 0.3329 - mae: 0.42
92 - val_loss: 0.9748 - val_mae: 0.9873
Epoch 24/250
49 - val_loss: 0.5536 - val_mae: 0.7441
Epoch 25/250
1/1 [============== ] - 0s 30ms/step - loss: 0.3640 - mae: 0.46
44 - val_loss: 0.2767 - val_mae: 0.5260
Epoch 26/250
59 - val_loss: 0.1168 - val_mae: 0.3418
Epoch 27/250
1/1 [============== ] - 0s 32ms/step - loss: 0.4542 - mae: 0.54
17 - val_loss: 0.0390 - val_mae: 0.1974
Epoch 28/250
1/1 [============= ] - 0s 32ms/step - loss: 0.4761 - mae: 0.56
17 - val_loss: 0.0091 - val_mae: 0.0952
Epoch 29/250
1/1 [============= ] - 0s 30ms/step - loss: 0.4730 - mae: 0.55
19 - val_loss: 0.0012 - val_mae: 0.0343
Epoch 30/250
1/1 [============= ] - 0s 31ms/step - loss: 0.4477 - mae: 0.52
10 - val loss: 1.2764e-04 - val mae: 0.0113
Epoch 31/250
79 - val loss: 4.4362e-04 - val mae: 0.0211
Epoch 32/250
1/1 [============= ] - 0s 31ms/step - loss: 0.3600 - mae: 0.47
61 - val loss: 0.0033 - val mae: 0.0575
Epoch 33/250
90 - val loss: 0.0130 - val mae: 0.1142
Epoch 34/250
1/1 [============= ] - 0s 31ms/step - loss: 0.2713 - mae: 0.42
16 - val_loss: 0.0341 - val_mae: 0.1848
Epoch 35/250
1/1 [============= ] - 0s 29ms/step - loss: 0.2372 - mae: 0.39
86 - val loss: 0.0694 - val mae: 0.2635
Epoch 36/250
1/1 [============== ] - 0s 39ms/step - loss: 0.2115 - mae: 0.37
```

```
79 - val_loss: 0.1192 - val_mae: 0.3452
Epoch 37/250
90 - val_loss: 0.1813 - val_mae: 0.4258
Epoch 38/250
42 - val_loss: 0.2521 - val_mae: 0.5021
Epoch 39/250
1/1 [============ ] - 0s 30ms/step - loss: 0.1737 - mae: 0.33
52 - val_loss: 0.3270 - val_mae: 0.5719
Epoch 40/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1682 - mae: 0.32
68 - val_loss: 0.4017 - val_mae: 0.6338
Epoch 41/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1634 - mae: 0.32
15 - val_loss: 0.4721 - val_mae: 0.6871
Epoch 42/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1584 - mae: 0.31
59 - val_loss: 0.5351 - val_mae: 0.7315
Epoch 43/250
85 - val_loss: 0.5885 - val_mae: 0.7671
Epoch 44/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1450 - mae: 0.30
06 - val_loss: 0.6310 - val_mae: 0.7943
Epoch 45/250
1/1 [============] - 0s 30ms/step - loss: 0.1368 - mae: 0.29
22 - val_loss: 0.6621 - val_mae: 0.8137
Epoch 46/250
1/1 [============== ] - 0s 29ms/step - loss: 0.1280 - mae: 0.28
04 - val_loss: 0.6822 - val_mae: 0.8259
Epoch 47/250
54 - val_loss: 0.6921 - val_mae: 0.8319
Epoch 48/250
1/1 [============== ] - 0s 37ms/step - loss: 0.1108 - mae: 0.24
86 - val_loss: 0.6930 - val_mae: 0.8325
Epoch 49/250
32 - val_loss: 0.6866 - val_mae: 0.8286
Epoch 50/250
1/1 [============== ] - 0s 28ms/step - loss: 0.0971 - mae: 0.21
72 - val_loss: 0.6744 - val_mae: 0.8212
Epoch 51/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0922 - mae: 0.21
29 - val_loss: 0.6580 - val_mae: 0.8112
Epoch 52/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0886 - mae: 0.21
12 - val_loss: 0.6391 - val_mae: 0.7994
Epoch 53/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0863 - mae: 0.21
25 - val loss: 0.6190 - val mae: 0.7868
Epoch 54/250
1/1 [===========] - 0s 30ms/step - loss: 0.0850 - mae: 0.21
30 - val loss: 0.5991 - val mae: 0.7740
Epoch 55/250
36 - val loss: 0.5803 - val mae: 0.7618
Epoch 56/250
95 - val loss: 0.5634 - val mae: 0.7506
Epoch 57/250
1/1 [============== ] - 0s 28ms/step - loss: 0.0841 - mae: 0.22
47 - val loss: 0.5489 - val mae: 0.7408
Epoch 58/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0839 - mae: 0.22
80 - val loss: 0.5371 - val mae: 0.7329
Epoch 59/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0834 - mae: 0.22
```

```
95 - val_loss: 0.5281 - val_mae: 0.7267
Epoch 60/250
05 - val_loss: 0.5219 - val_mae: 0.7224
Epoch 61/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0813 - mae: 0.23
04 - val_loss: 0.5183 - val_mae: 0.7199
Epoch 62/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0796 - mae: 0.22
89 - val_loss: 0.5168 - val_mae: 0.7189
Epoch 63/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0775 - mae: 0.22
67 - val_loss: 0.5170 - val_mae: 0.7190
Epoch 64/250
39 - val_loss: 0.5184 - val_mae: 0.7200
Epoch 65/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0728 - mae: 0.22
02 - val_loss: 0.5205 - val_mae: 0.7215
Epoch 66/250
59 - val_loss: 0.5227 - val_mae: 0.7230
Epoch 67/250
12 - val_loss: 0.5246 - val_mae: 0.7243
Epoch 68/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0661 - mae: 0.20
62 - val_loss: 0.5256 - val_mae: 0.7250
Epoch 69/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0644 - mae: 0.20
11 - val_loss: 0.5254 - val_mae: 0.7249
Epoch 70/250
62 - val_loss: 0.5238 - val_mae: 0.7238
Epoch 71/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0621 - mae: 0.19
18 - val_loss: 0.5206 - val_mae: 0.7216
Epoch 72/250
90 - val_loss: 0.5158 - val_mae: 0.7182
Epoch 73/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0611 - mae: 0.18
69 - val_loss: 0.5094 - val_mae: 0.7137
Epoch 74/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0608 - mae: 0.18
51 - val_loss: 0.5016 - val_mae: 0.7082
Epoch 75/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0606 - mae: 0.18
39 - val_loss: 0.4925 - val_mae: 0.7018
Epoch 76/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0603 - mae: 0.18
36 - val loss: 0.4827 - val mae: 0.6947
Epoch 77/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0599 - mae: 0.18
38 - val loss: 0.4722 - val mae: 0.6872
Epoch 78/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0594 - mae: 0.18
42 - val loss: 0.4616 - val mae: 0.6794
Epoch 79/250
47 - val loss: 0.4511 - val mae: 0.6716
Epoch 80/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0580 - mae: 0.18
51 - val_loss: 0.4411 - val_mae: 0.6641
Epoch 81/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0572 - mae: 0.18
51 - val loss: 0.4318 - val mae: 0.6572
Epoch 82/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0564 - mae: 0.18
```

```
50 - val_loss: 0.4236 - val_mae: 0.6509
Epoch 83/250
49 - val_loss: 0.4166 - val_mae: 0.6454
Epoch 84/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0550 - mae: 0.18
49 - val_loss: 0.4109 - val_mae: 0.6410
Epoch 85/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0543 - mae: 0.18
46 - val_loss: 0.4067 - val_mae: 0.6377
Epoch 86/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0538 - mae: 0.18
43 - val_loss: 0.4040 - val_mae: 0.6356
Epoch 87/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0533 - mae: 0.18
41 - val_loss: 0.4027 - val_mae: 0.6346
Epoch 88/250
1/1 [===========] - 0s 28ms/step - loss: 0.0529 - mae: 0.18
45 - val_loss: 0.4029 - val_mae: 0.6347
Epoch 89/250
46 - val loss: 0.4044 - val mae: 0.6359
Epoch 90/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0519 - mae: 0.18
44 - val_loss: 0.4070 - val_mae: 0.6380
Epoch 91/250
39 - val_loss: 0.4107 - val_mae: 0.6409
Epoch 92/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0509 - mae: 0.18
31 - val_loss: 0.4152 - val_mae: 0.6443
Epoch 93/250
20 - val_loss: 0.4202 - val_mae: 0.6482
Epoch 94/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0497 - mae: 0.18
07 - val_loss: 0.4255 - val_mae: 0.6523
Epoch 95/250
91 - val_loss: 0.4310 - val_mae: 0.6565
Epoch 96/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0486 - mae: 0.17
75 - val_loss: 0.4363 - val_mae: 0.6605
Epoch 97/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0480 - mae: 0.17
57 - val_loss: 0.4412 - val_mae: 0.6642
Epoch 98/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0475 - mae: 0.17
38 - val_loss: 0.4455 - val_mae: 0.6675
Epoch 99/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0471 - mae: 0.17
20 - val loss: 0.4492 - val mae: 0.6702
Epoch 100/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0466 - mae: 0.17
04 - val loss: 0.4519 - val mae: 0.6722
Epoch 101/250
91 - val loss: 0.4537 - val mae: 0.6736
Epoch 102/250
78 - val loss: 0.4545 - val mae: 0.6741
Epoch 103/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0454 - mae: 0.16
66 - val_loss: 0.4542 - val_mae: 0.6740
Epoch 104/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0449 - mae: 0.16
56 - val loss: 0.4530 - val mae: 0.6731
Epoch 105/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0445 - mae: 0.16
```

```
46 - val_loss: 0.4510 - val_mae: 0.6715
Epoch 106/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0440 - mae: 0.16
38 - val_loss: 0.4481 - val_mae: 0.6694
Epoch 107/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0435 - mae: 0.16
31 - val_loss: 0.4446 - val_mae: 0.6668
Epoch 108/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0431 - mae: 0.16
25 - val_loss: 0.4407 - val_mae: 0.6638
Epoch 109/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0426 - mae: 0.16
20 - val_loss: 0.4363 - val_mae: 0.6606
Epoch 110/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0421 - mae: 0.16
15 - val_loss: 0.4318 - val_mae: 0.6571
Epoch 111/250
1/1 [===========] - 0s 31ms/step - loss: 0.0417 - mae: 0.16
11 - val_loss: 0.4273 - val_mae: 0.6537
Epoch 112/250
08 - val_loss: 0.4229 - val_mae: 0.6503
Epoch 113/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0408 - mae: 0.16
04 - val_loss: 0.4187 - val_mae: 0.6471
Epoch 114/250
00 - val_loss: 0.4148 - val_mae: 0.6440
Epoch 115/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0399 - mae: 0.15
96 - val_loss: 0.4113 - val_mae: 0.6413
Epoch 116/250
91 - val_loss: 0.4082 - val_mae: 0.6389
Epoch 117/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0390 - mae: 0.15
85 - val_loss: 0.4056 - val_mae: 0.6369
Epoch 118/250
79 - val_loss: 0.4035 - val_mae: 0.6352
Epoch 119/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0382 - mae: 0.15
72 - val_loss: 0.4018 - val_mae: 0.6338
Epoch 120/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0378 - mae: 0.15
64 - val_loss: 0.4004 - val_mae: 0.6328
Epoch 121/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0373 - mae: 0.15
55 - val_loss: 0.3994 - val_mae: 0.6320
Epoch 122/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0369 - mae: 0.15
45 - val loss: 0.3986 - val mae: 0.6313
Epoch 123/250
1/1 [===========] - 0s 29ms/step - loss: 0.0365 - mae: 0.15
36 - val loss: 0.3980 - val mae: 0.6309
Epoch 124/250
25 - val loss: 0.3975 - val mae: 0.6305
Epoch 125/250
15 - val loss: 0.3970 - val mae: 0.6301
Epoch 126/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0353 - mae: 0.15
04 - val_loss: 0.3966 - val_mae: 0.6297
Epoch 127/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0349 - mae: 0.14
94 - val loss: 0.3960 - val mae: 0.6293
Epoch 128/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0345 - mae: 0.14
```

```
83 - val_loss: 0.3954 - val_mae: 0.6288
Epoch 129/250
73 - val_loss: 0.3946 - val_mae: 0.6281
Epoch 130/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0337 - mae: 0.14
64 - val_loss: 0.3936 - val_mae: 0.6274
Epoch 131/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0333 - mae: 0.14
54 - val_loss: 0.3926 - val_mae: 0.6265
Epoch 132/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0329 - mae: 0.14
46 - val_loss: 0.3914 - val_mae: 0.6256
Epoch 133/250
1/1 [============= ] - 0s 58ms/step - loss: 0.0325 - mae: 0.14
37 - val_loss: 0.3901 - val_mae: 0.6246
Epoch 134/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0322 - mae: 0.14
30 - val_loss: 0.3887 - val_mae: 0.6235
Epoch 135/250
22 - val_loss: 0.3873 - val_mae: 0.6223
Epoch 136/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0314 - mae: 0.14
15 - val_loss: 0.3859 - val_mae: 0.6212
Epoch 137/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0310 - mae: 0.14
08 - val_loss: 0.3845 - val_mae: 0.6201
Epoch 138/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0307 - mae: 0.14
00 - val_loss: 0.3832 - val_mae: 0.6190
Epoch 139/250
93 - val_loss: 0.3819 - val_mae: 0.6180
Epoch 140/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0300 - mae: 0.13
86 - val_loss: 0.3807 - val_mae: 0.6170
Epoch 141/250
79 - val_loss: 0.3796 - val_mae: 0.6161
Epoch 142/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0293 - mae: 0.13
71 - val_loss: 0.3785 - val_mae: 0.6153
Epoch 143/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0289 - mae: 0.13
65 - val_loss: 0.3775 - val_mae: 0.6144
Epoch 144/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0286 - mae: 0.13
57 - val_loss: 0.3766 - val_mae: 0.6137
Epoch 145/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0282 - mae: 0.13
50 - val loss: 0.3756 - val mae: 0.6129
Epoch 146/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0279 - mae: 0.13
42 - val loss: 0.3746 - val mae: 0.6121
Epoch 147/250
33 - val loss: 0.3736 - val mae: 0.6112
Epoch 148/250
25 - val loss: 0.3725 - val mae: 0.6104
Epoch 149/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0269 - mae: 0.13
17 - val_loss: 0.3714 - val_mae: 0.6094
Epoch 150/250
1/1 [============= ] - 0s 28ms/step - loss: 0.0266 - mae: 0.13
08 - val loss: 0.3701 - val mae: 0.6084
Epoch 151/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0263 - mae: 0.13
```

```
00 - val_loss: 0.3688 - val_mae: 0.6073
Epoch 152/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0260 - mae: 0.12
92 - val_loss: 0.3674 - val_mae: 0.6061
Epoch 153/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0256 - mae: 0.12
84 - val_loss: 0.3658 - val_mae: 0.6049
Epoch 154/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0253 - mae: 0.12
76 - val_loss: 0.3643 - val_mae: 0.6035
Epoch 155/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0250 - mae: 0.12
68 - val_loss: 0.3626 - val_mae: 0.6022
Epoch 156/250
61 - val_loss: 0.3609 - val_mae: 0.6008
Epoch 157/250
1/1 [============ ] - 0s 53ms/step - loss: 0.0245 - mae: 0.12
54 - val_loss: 0.3592 - val_mae: 0.5994
Epoch 158/250
47 - val_loss: 0.3575 - val_mae: 0.5979
Epoch 159/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0239 - mae: 0.12
40 - val_loss: 0.3559 - val_mae: 0.5966
Epoch 160/250
33 - val_loss: 0.3543 - val_mae: 0.5952
Epoch 161/250
1/1 [============= ] - 0s 65ms/step - loss: 0.0234 - mae: 0.12
27 - val_loss: 0.3527 - val_mae: 0.5939
Epoch 162/250
21 - val_loss: 0.3512 - val_mae: 0.5927
Epoch 163/250
1/1 [============== ] - 0s 63ms/step - loss: 0.0228 - mae: 0.12
15 - val_loss: 0.3498 - val_mae: 0.5915
Epoch 164/250
08 - val_loss: 0.3485 - val_mae: 0.5903
Epoch 165/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0223 - mae: 0.12
02 - val_loss: 0.3472 - val_mae: 0.5892
Epoch 166/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0221 - mae: 0.11
95 - val_loss: 0.3459 - val_mae: 0.5881
Epoch 167/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0219 - mae: 0.11
89 - val_loss: 0.3447 - val_mae: 0.5871
Epoch 168/250
84 - val loss: 0.3434 - val mae: 0.5860
Epoch 169/250
1/1 [============= ] - 0s 50ms/step - loss: 0.0214 - mae: 0.11
79 - val loss: 0.3422 - val mae: 0.5850
Epoch 170/250
73 - val loss: 0.3410 - val mae: 0.5839
Epoch 171/250
68 - val loss: 0.3397 - val mae: 0.5828
Epoch 172/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0207 - mae: 0.11
62 - val_loss: 0.3384 - val_mae: 0.5817
Epoch 173/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0205 - mae: 0.11
57 - val loss: 0.3370 - val mae: 0.5805
Epoch 174/250
1/1 [=============== ] - 0s 33ms/step - loss: 0.0203 - mae: 0.11
```

```
52 - val_loss: 0.3356 - val_mae: 0.5793
Epoch 175/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0201 - mae: 0.11
47 - val_loss: 0.3341 - val_mae: 0.5780
Epoch 176/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0199 - mae: 0.11
41 - val_loss: 0.3326 - val_mae: 0.5767
Epoch 177/250
36 - val_loss: 0.3310 - val_mae: 0.5753
Epoch 178/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0195 - mae: 0.11
31 - val_loss: 0.3294 - val_mae: 0.5739
Epoch 179/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0193 - mae: 0.11
25 - val_loss: 0.3277 - val_mae: 0.5725
Epoch 180/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0191 - mae: 0.11
20 - val_loss: 0.3261 - val_mae: 0.5710
Epoch 181/250
15 - val_loss: 0.3244 - val_mae: 0.5696
Epoch 182/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0187 - mae: 0.11
10 - val_loss: 0.3227 - val_mae: 0.5681
Epoch 183/250
04 - val_loss: 0.3210 - val_mae: 0.5666
Epoch 184/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0183 - mae: 0.10
99 - val_loss: 0.3193 - val_mae: 0.5651
Epoch 185/250
93 - val_loss: 0.3176 - val_mae: 0.5636
Epoch 186/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0180 - mae: 0.10
88 - val_loss: 0.3159 - val_mae: 0.5621
Epoch 187/250
82 - val_loss: 0.3142 - val_mae: 0.5606
Epoch 188/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0176 - mae: 0.10
77 - val_loss: 0.3125 - val_mae: 0.5590
Epoch 189/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0174 - mae: 0.10
71 - val_loss: 0.3108 - val_mae: 0.5575
Epoch 190/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0173 - mae: 0.10
65 - val_loss: 0.3091 - val_mae: 0.5560
Epoch 191/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0171 - mae: 0.10
60 - val loss: 0.3074 - val mae: 0.5544
Epoch 192/250
1/1 [===========] - 0s 29ms/step - loss: 0.0169 - mae: 0.10
54 - val loss: 0.3057 - val mae: 0.5529
Epoch 193/250
49 - val loss: 0.3039 - val mae: 0.5513
Epoch 194/250
43 - val loss: 0.3022 - val mae: 0.5497
Epoch 195/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0164 - mae: 0.10
37 - val_loss: 0.3005 - val_mae: 0.5481
Epoch 196/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0162 - mae: 0.10
32 - val loss: 0.2987 - val mae: 0.5465
Epoch 197/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0161 - mae: 0.10
```

```
26 - val_loss: 0.2969 - val_mae: 0.5449
Epoch 198/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0159 - mae: 0.10
20 - val_loss: 0.2952 - val_mae: 0.5433
Epoch 199/250
14 - val_loss: 0.2934 - val_mae: 0.5416
Epoch 200/250
09 - val_loss: 0.2916 - val_mae: 0.5400
Epoch 201/250
03 - val_loss: 0.2898 - val_mae: 0.5383
Epoch 202/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0152 - mae: 0.09
97 - val_loss: 0.2880 - val_mae: 0.5366
Epoch 203/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0151 - mae: 0.09
91 - val_loss: 0.2862 - val_mae: 0.5349
Epoch 204/250
85 - val_loss: 0.2843 - val_mae: 0.5332
Epoch 205/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0147 - mae: 0.09
79 - val_loss: 0.2825 - val_mae: 0.5315
Epoch 206/250
73 - val_loss: 0.2807 - val_mae: 0.5298
Epoch 207/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0144 - mae: 0.09
67 - val_loss: 0.2788 - val_mae: 0.5280
Epoch 208/250
60 - val_loss: 0.2770 - val_mae: 0.5263
Epoch 209/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0140 - mae: 0.09
54 - val_loss: 0.2751 - val_mae: 0.5245
Epoch 210/250
48 - val_loss: 0.2732 - val_mae: 0.5227
Epoch 211/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0137 - mae: 0.09
41 - val_loss: 0.2713 - val_mae: 0.5209
Epoch 212/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0135 - mae: 0.09
35 - val_loss: 0.2694 - val_mae: 0.5190
Epoch 213/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0133 - mae: 0.09
28 - val_loss: 0.2674 - val_mae: 0.5171
Epoch 214/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0131 - mae: 0.09
21 - val loss: 0.2655 - val mae: 0.5152
Epoch 215/250
1/1 [===========] - 0s 29ms/step - loss: 0.0130 - mae: 0.09
15 - val loss: 0.2635 - val mae: 0.5133
Epoch 216/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0128 - mae: 0.09
08 - val loss: 0.2615 - val mae: 0.5113
Epoch 217/250
01 - val loss: 0.2594 - val mae: 0.5094
Epoch 218/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0124 - mae: 0.08
94 - val_loss: 0.2574 - val_mae: 0.5073
Epoch 219/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0123 - mae: 0.08
88 - val loss: 0.2553 - val mae: 0.5053
Epoch 220/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0121 - mae: 0.08
```

```
81 - val_loss: 0.2533 - val_mae: 0.5033
Epoch 221/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0119 - mae: 0.08
74 - val_loss: 0.2512 - val_mae: 0.5012
Epoch 222/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0118 - mae: 0.08
67 - val_loss: 0.2492 - val_mae: 0.4992
Epoch 223/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0116 - mae: 0.08
60 - val_loss: 0.2471 - val_mae: 0.4971
Epoch 224/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0114 - mae: 0.08
53 - val_loss: 0.2450 - val_mae: 0.4950
Epoch 225/250
46 - val_loss: 0.2430 - val_mae: 0.4930
Epoch 226/250
1/1 [=========== ] - 0s 57ms/step - loss: 0.0111 - mae: 0.08
39 - val_loss: 0.2410 - val_mae: 0.4909
Epoch 227/250
32 - val_loss: 0.2390 - val_mae: 0.4889
Epoch 228/250
1/1 [============== ] - 0s 80ms/step - loss: 0.0108 - mae: 0.08
27 - val_loss: 0.2370 - val_mae: 0.4868
Epoch 229/250
21 - val_loss: 0.2350 - val_mae: 0.4848
Epoch 230/250
1/1 [============== ] - 0s 52ms/step - loss: 0.0105 - mae: 0.08
15 - val_loss: 0.2331 - val_mae: 0.4828
Epoch 231/250
09 - val_loss: 0.2312 - val_mae: 0.4808
Epoch 232/250
1/1 [============== ] - 0s 76ms/step - loss: 0.0102 - mae: 0.08
03 - val_loss: 0.2293 - val_mae: 0.4789
Epoch 233/250
1/1 [=============== ] - 0s 45ms/step - loss: 0.0100 - mae: 0.07
98 - val_loss: 0.2275 - val_mae: 0.4769
Epoch 234/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0099 - mae: 0.07
92 - val_loss: 0.2256 - val_mae: 0.4750
Epoch 235/250
1/1 [============== ] - 0s 56ms/step - loss: 0.0098 - mae: 0.07
86 - val_loss: 0.2238 - val_mae: 0.4731
Epoch 236/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0096 - mae: 0.07
81 - val_loss: 0.2221 - val_mae: 0.4712
Epoch 237/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0095 - mae: 0.07
75 - val loss: 0.2203 - val mae: 0.4694
Epoch 238/250
1/1 [===========] - 0s 32ms/step - loss: 0.0093 - mae: 0.07
70 - val loss: 0.2186 - val mae: 0.4675
Epoch 239/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0092 - mae: 0.07
65 - val loss: 0.2168 - val mae: 0.4657
Epoch 240/250
59 - val loss: 0.2152 - val mae: 0.4638
Epoch 241/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0089 - mae: 0.07
54 - val_loss: 0.2135 - val_mae: 0.4620
Epoch 242/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0088 - mae: 0.07
49 - val loss: 0.2118 - val mae: 0.4602
Epoch 243/250
1/1 [=============== ] - 0s 29ms/step - loss: 0.0087 - mae: 0.07
```

```
44 - val_loss: 0.2102 - val_mae: 0.4585
Epoch 244/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0086 - mae: 0.07
39 - val_loss: 0.2086 - val_mae: 0.4567
Epoch 245/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0085 - mae: 0.07
34 - val_loss: 0.2070 - val_mae: 0.4550
Epoch 246/250
29 - val_loss: 0.2054 - val_mae: 0.4532
Epoch 247/250
24 - val_loss: 0.2038 - val_mae: 0.4515
Epoch 248/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0081 - mae: 0.07
19 - val_loss: 0.2023 - val_mae: 0.4498
Epoch 249/250
15 - val_loss: 0.2007 - val_mae: 0.4480
Epoch 250/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0079 - mae: 0.07
10 - val_loss: 0.1992 - val_mae: 0.4463
Epoch 1/250
6676 - val_loss: 12.9389 - val_mae: 3.5971
Epoch 2/250
1/1 [============== ] - 0s 30ms/step - loss: 11.9376 - mae: 3.4
206 - val_loss: 11.8474 - val_mae: 3.4420
Epoch 3/250
1/1 [============== ] - 0s 29ms/step - loss: 10.4928 - mae: 3.2
052 - val_loss: 10.9496 - val_mae: 3.3090
Epoch 4/250
15 - val_loss: 10.0526 - val_mae: 3.1706
Epoch 5/250
1/1 [============== ] - 0s 30ms/step - loss: 8.4865 - mae: 2.87
42 - val_loss: 9.1151 - val_mae: 3.0191
Epoch 6/250
08 - val_loss: 8.1709 - val_mae: 2.8585
Epoch 7/250
1/1 [============== ] - 0s 29ms/step - loss: 7.1840 - mae: 2.64
18 - val_loss: 7.2583 - val_mae: 2.6941
Epoch 8/250
1/1 [=============== ] - 0s 31ms/step - loss: 6.6620 - mae: 2.54
31 - val_loss: 6.4021 - val_mae: 2.5302
Epoch 9/250
34 - val_loss: 5.6164 - val_mae: 2.3699
Epoch 10/250
13 - val loss: 4.9140 - val mae: 2.2168
Epoch 11/250
1/1 [============= ] - 0s 37ms/step - loss: 5.4390 - mae: 2.29
47 - val loss: 4.3129 - val mae: 2.0768
Epoch 12/250
1/1 [============= ] - 0s 35ms/step - loss: 5.1068 - mae: 2.22
20 - val loss: 3.8185 - val mae: 1.9541
Epoch 13/250
18 - val loss: 3.4069 - val mae: 1.8458
Epoch 14/250
1/1 [============= ] - 0s 29ms/step - loss: 4.5037 - mae: 2.08
34 - val_loss: 3.0614 - val_mae: 1.7497
Epoch 15/250
63 - val loss: 2.7668 - val mae: 1.6634
Epoch 16/250
1/1 [============== ] - 0s 30ms/step - loss: 3.9626 - mae: 1.95
```

```
07 - val_loss: 2.5111 - val_mae: 1.5847
Epoch 17/250
67 - val_loss: 2.2859 - val_mae: 1.5119
Epoch 18/250
42 - val_loss: 2.0850 - val_mae: 1.4440
Epoch 19/250
33 - val_loss: 1.9040 - val_mae: 1.3799
Epoch 20/250
38 - val_loss: 1.7395 - val_mae: 1.3189
Epoch 21/250
57 - val_loss: 1.5891 - val_mae: 1.2606
Epoch 22/250
1/1 [============= ] - 0s 46ms/step - loss: 2.6735 - mae: 1.58
90 - val_loss: 1.4509 - val_mae: 1.2045
Epoch 23/250
36 - val_loss: 1.3236 - val_mae: 1.1505
Epoch 24/250
97 - val_loss: 1.2061 - val_mae: 1.0982
Epoch 25/250
70 - val_loss: 1.0974 - val_mae: 1.0476
Epoch 26/250
1/1 [============== ] - 0s 35ms/step - loss: 2.0401 - mae: 1.37
57 - val_loss: 0.9969 - val_mae: 0.9985
Epoch 27/250
57 - val_loss: 0.9040 - val_mae: 0.9508
Epoch 28/250
1/1 [============== ] - 0s 38ms/step - loss: 1.7784 - mae: 1.27
70 - val_loss: 0.8182 - val_mae: 0.9045
Epoch 29/250
96 - val_loss: 0.7389 - val_mae: 0.8596
Epoch 30/250
1/1 [============== ] - 0s 35ms/step - loss: 1.5487 - mae: 1.18
36 - val_loss: 0.6658 - val_mae: 0.8160
Epoch 31/250
1/1 [============== ] - 0s 35ms/step - loss: 1.4450 - mae: 1.13
89 - val_loss: 0.5985 - val_mae: 0.7736
Epoch 32/250
1/1 [============= ] - 0s 37ms/step - loss: 1.3482 - mae: 1.09
55 - val_loss: 0.5366 - val_mae: 0.7325
Epoch 33/250
33 - val loss: 0.4797 - val mae: 0.6926
Epoch 34/250
25 - val loss: 0.4277 - val mae: 0.6540
Epoch 35/250
1/1 [============= ] - 0s 35ms/step - loss: 1.0956 - mae: 0.97
30 - val loss: 0.3800 - val mae: 0.6164
Epoch 36/250
48 - val loss: 0.3365 - val mae: 0.5801
Epoch 37/250
1/1 [============= ] - 0s 36ms/step - loss: 0.9555 - mae: 0.89
79 - val loss: 0.2969 - val mae: 0.5448
Epoch 38/250
1/1 [============= ] - 0s 33ms/step - loss: 0.8928 - mae: 0.86
22 - val loss: 0.2608 - val mae: 0.5107
Epoch 39/250
1/1 [============== ] - 0s 36ms/step - loss: 0.8347 - mae: 0.82
```

```
76 - val_loss: 0.2281 - val_mae: 0.4776
Epoch 40/250
43 - val_loss: 0.1985 - val_mae: 0.4456
Epoch 41/250
1/1 [============ ] - 0s 33ms/step - loss: 0.7309 - mae: 0.76
20 - val_loss: 0.1718 - val_mae: 0.4145
Epoch 42/250
1/1 [============= ] - 0s 34ms/step - loss: 0.6846 - mae: 0.73
09 - val_loss: 0.1478 - val_mae: 0.3845
Epoch 43/250
1/1 [============ ] - 0s 31ms/step - loss: 0.6418 - mae: 0.70
08 - val_loss: 0.1263 - val_mae: 0.3554
Epoch 44/250
17 - val_loss: 0.1071 - val_mae: 0.3272
Epoch 45/250
1/1 [============ ] - 0s 30ms/step - loss: 0.5653 - mae: 0.64
36 - val_loss: 0.0900 - val_mae: 0.2999
Epoch 46/250
65 - val_loss: 0.0748 - val_mae: 0.2735
Epoch 47/250
1/1 [============] - 0s 32ms/step - loss: 0.4998 - mae: 0.59
03 - val_loss: 0.0615 - val_mae: 0.2480
Epoch 48/250
49 - val_loss: 0.0498 - val_mae: 0.2233
Epoch 49/250
1/1 [============== ] - 0s 30ms/step - loss: 0.4438 - mae: 0.54
11 - val_loss: 0.0397 - val_mae: 0.1993
Epoch 50/250
94 - val_loss: 0.0310 - val_mae: 0.1762
Epoch 51/250
1/1 [============== ] - 0s 30ms/step - loss: 0.3959 - mae: 0.49
97 - val_loss: 0.0237 - val_mae: 0.1538
Epoch 52/250
12 - val_loss: 0.0175 - val_mae: 0.1322
Epoch 53/250
1/1 [============== ] - 0s 47ms/step - loss: 0.3551 - mae: 0.46
33 - val_loss: 0.0124 - val_mae: 0.1113
Epoch 54/250
72 - val_loss: 0.0083 - val_mae: 0.0911
Epoch 55/250
1/1 [============= ] - 0s 59ms/step - loss: 0.3203 - mae: 0.43
32 - val_loss: 0.0051 - val_mae: 0.0715
Epoch 56/250
1/1 [============= ] - 0s 60ms/step - loss: 0.3050 - mae: 0.42
01 - val loss: 0.0028 - val mae: 0.0527
Epoch 57/250
1/1 [============ ] - 0s 48ms/step - loss: 0.2909 - mae: 0.40
88 - val loss: 0.0012 - val mae: 0.0345
Epoch 58/250
81 - val loss: 2.8507e-04 - val mae: 0.0169
Epoch 59/250
89 - val loss: 4.4884e-09 - val mae: 6.6996e-05
Epoch 60/250
16 - val_loss: 2.6931e-04 - val_mae: 0.0164
Epoch 61/250
1/1 [============= ] - 0s 46ms/step - loss: 0.2450 - mae: 0.37
44 - val loss: 0.0010 - val mae: 0.0322
Epoch 62/250
1/1 [============== ] - 0s 46ms/step - loss: 0.2358 - mae: 0.36
```

```
76 - val_loss: 0.0022 - val_mae: 0.0473
Epoch 63/250
20 - val_loss: 0.0038 - val_mae: 0.0619
Epoch 64/250
1/1 [============= ] - 0s 31ms/step - loss: 0.2197 - mae: 0.35
68 - val_loss: 0.0058 - val_mae: 0.0760
Epoch 65/250
17 - val_loss: 0.0080 - val_mae: 0.0895
Epoch 66/250
69 - val_loss: 0.0105 - val_mae: 0.1025
Epoch 67/250
22 - val_loss: 0.0132 - val_mae: 0.1150
Epoch 68/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1952 - mae: 0.33
77 - val_loss: 0.0161 - val_mae: 0.1269
Epoch 69/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1904 - mae: 0.33
38 - val loss: 0.0192 - val mae: 0.1384
Epoch 70/250
05 - val_loss: 0.0223 - val_mae: 0.1494
Epoch 71/250
74 - val_loss: 0.0256 - val_mae: 0.1600
Epoch 72/250
1/1 [============== ] - 0s 35ms/step - loss: 0.1785 - mae: 0.32
50 - val_loss: 0.0289 - val_mae: 0.1701
Epoch 73/250
29 - val_loss: 0.0323 - val_mae: 0.1797
Epoch 74/250
1/1 [============== ] - 0s 44ms/step - loss: 0.1723 - mae: 0.32
09 - val_loss: 0.0357 - val_mae: 0.1889
Epoch 75/250
96 - val_loss: 0.0391 - val_mae: 0.1977
Epoch 76/250
1/1 [============== ] - 0s 34ms/step - loss: 0.1673 - mae: 0.31
84 - val_loss: 0.0425 - val_mae: 0.2061
Epoch 77/250
1/1 [============== ] - 0s 35ms/step - loss: 0.1651 - mae: 0.31
72 - val_loss: 0.0458 - val_mae: 0.2141
Epoch 78/250
1/1 [============= ] - 0s 34ms/step - loss: 0.1632 - mae: 0.31
61 - val_loss: 0.0492 - val_mae: 0.2217
Epoch 79/250
1/1 [============= ] - 0s 35ms/step - loss: 0.1614 - mae: 0.31
50 - val loss: 0.0524 - val mae: 0.2289
Epoch 80/250
1/1 [============== ] - 0s 40ms/step - loss: 0.1598 - mae: 0.31
39 - val loss: 0.0556 - val mae: 0.2358
Epoch 81/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1584 - mae: 0.31
28 - val loss: 0.0587 - val mae: 0.2424
Epoch 82/250
18 - val loss: 0.0618 - val mae: 0.2485
Epoch 83/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1559 - mae: 0.31
08 - val loss: 0.0647 - val mae: 0.2544
Epoch 84/250
02 - val loss: 0.0676 - val mae: 0.2600
Epoch 85/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1538 - mae: 0.30
```

```
96 - val_loss: 0.0703 - val_mae: 0.2652
Epoch 86/250
90 - val_loss: 0.0730 - val_mae: 0.2701
Epoch 87/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1520 - mae: 0.30
84 - val_loss: 0.0755 - val_mae: 0.2748
Epoch 88/250
79 - val_loss: 0.0780 - val_mae: 0.2792
Epoch 89/250
72 - val loss: 0.0803 - val_mae: 0.2833
Epoch 90/250
66 - val_loss: 0.0825 - val_mae: 0.2872
Epoch 91/250
60 - val_loss: 0.0846 - val_mae: 0.2908
Epoch 92/250
53 - val loss: 0.0866 - val mae: 0.2942
Epoch 93/250
1/1 [============== ] - 0s 29ms/step - loss: 0.1478 - mae: 0.30
46 - val_loss: 0.0885 - val_mae: 0.2974
Epoch 94/250
41 - val_loss: 0.0902 - val_mae: 0.3004
Epoch 95/250
1/1 [============== ] - 0s 29ms/step - loss: 0.1466 - mae: 0.30
36 - val_loss: 0.0919 - val_mae: 0.3031
Epoch 96/250
30 - val_loss: 0.0935 - val_mae: 0.3057
Epoch 97/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1453 - mae: 0.30
25 - val_loss: 0.0949 - val_mae: 0.3081
Epoch 98/250
20 - val_loss: 0.0963 - val_mae: 0.3103
Epoch 99/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1439 - mae: 0.30
15 - val_loss: 0.0975 - val_mae: 0.3123
Epoch 100/250
1/1 [============== ] - 0s 35ms/step - loss: 0.1432 - mae: 0.30
09 - val_loss: 0.0987 - val_mae: 0.3142
Epoch 101/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1425 - mae: 0.30
02 - val_loss: 0.0998 - val_mae: 0.3159
Epoch 102/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1417 - mae: 0.29
95 - val loss: 0.1008 - val mae: 0.3175
Epoch 103/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1409 - mae: 0.29
86 - val loss: 0.1017 - val mae: 0.3190
Epoch 104/250
76 - val loss: 0.1026 - val mae: 0.3203
Epoch 105/250
65 - val loss: 0.1034 - val mae: 0.3215
Epoch 106/250
1/1 [============= ] - 0s 29ms/step - loss: 0.1382 - mae: 0.29
53 - val_loss: 0.1041 - val_mae: 0.3226
Epoch 107/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1372 - mae: 0.29
39 - val loss: 0.1048 - val mae: 0.3237
Epoch 108/250
1/1 [============== ] - 0s 33ms/step - loss: 0.1362 - mae: 0.29
```

```
24 - val_loss: 0.1054 - val_mae: 0.3246
Epoch 109/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1351 - mae: 0.29
07 - val_loss: 0.1059 - val_mae: 0.3255
Epoch 110/250
1/1 [============ ] - 0s 36ms/step - loss: 0.1340 - mae: 0.28
88 - val_loss: 0.1065 - val_mae: 0.3263
Epoch 111/250
1/1 [============= ] - 0s 33ms/step - loss: 0.1328 - mae: 0.28
67 - val_loss: 0.1070 - val_mae: 0.3270
Epoch 112/250
1/1 [============ ] - 0s 37ms/step - loss: 0.1316 - mae: 0.28
44 - val_loss: 0.1074 - val_mae: 0.3278
Epoch 113/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1303 - mae: 0.28
18 - val_loss: 0.1079 - val_mae: 0.3285
Epoch 114/250
1/1 [============ ] - 0s 36ms/step - loss: 0.1291 - mae: 0.27
90 - val_loss: 0.1084 - val_mae: 0.3293
Epoch 115/250
59 - val_loss: 0.1089 - val_mae: 0.3300
Epoch 116/250
1/1 [============== ] - 0s 36ms/step - loss: 0.1269 - mae: 0.27
57 - val_loss: 0.1095 - val_mae: 0.3309
Epoch 117/250
55 - val_loss: 0.1102 - val_mae: 0.3319
Epoch 118/250
1/1 [============== ] - 0s 34ms/step - loss: 0.1252 - mae: 0.27
54 - val_loss: 0.1109 - val_mae: 0.3330
Epoch 119/250
51 - val_loss: 0.1118 - val_mae: 0.3344
Epoch 120/250
1/1 [============== ] - 0s 37ms/step - loss: 0.1239 - mae: 0.27
46 - val_loss: 0.1128 - val_mae: 0.3359
Epoch 121/250
38 - val_loss: 0.1141 - val_mae: 0.3377
Epoch 122/250
1/1 [============== ] - 0s 34ms/step - loss: 0.1228 - mae: 0.27
27 - val_loss: 0.1154 - val_mae: 0.3398
Epoch 123/250
1/1 [============== ] - 0s 37ms/step - loss: 0.1221 - mae: 0.27
13 - val_loss: 0.1170 - val_mae: 0.3420
Epoch 124/250
1/1 [============ ] - 0s 36ms/step - loss: 0.1212 - mae: 0.26
96 - val_loss: 0.1187 - val_mae: 0.3445
Epoch 125/250
1/1 [============ ] - 0s 33ms/step - loss: 0.1203 - mae: 0.26
76 - val loss: 0.1205 - val mae: 0.3471
Epoch 126/250
1/1 [============= ] - 0s 59ms/step - loss: 0.1193 - mae: 0.26
55 - val loss: 0.1223 - val mae: 0.3498
Epoch 127/250
34 - val loss: 0.1243 - val mae: 0.3525
Epoch 128/250
22 - val loss: 0.1262 - val mae: 0.3553
Epoch 129/250
1/1 [============ ] - 0s 31ms/step - loss: 0.1167 - mae: 0.26
13 - val_loss: 0.1282 - val_mae: 0.3580
Epoch 130/250
1/1 [============ ] - 0s 31ms/step - loss: 0.1160 - mae: 0.26
03 - val loss: 0.1301 - val mae: 0.3607
Epoch 131/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1154 - mae: 0.25
```

```
94 - val_loss: 0.1320 - val_mae: 0.3634
Epoch 132/250
85 - val_loss: 0.1339 - val_mae: 0.3660
Epoch 133/250
1/1 [============ ] - 0s 30ms/step - loss: 0.1144 - mae: 0.25
76 - val_loss: 0.1358 - val_mae: 0.3685
Epoch 134/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1139 - mae: 0.25
67 - val_loss: 0.1376 - val_mae: 0.3709
Epoch 135/250
1/1 [============= ] - 0s 33ms/step - loss: 0.1134 - mae: 0.25
58 - val_loss: 0.1393 - val_mae: 0.3733
Epoch 136/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1130 - mae: 0.25
52 - val_loss: 0.1410 - val_mae: 0.3756
Epoch 137/250
1/1 [============ ] - 0s 32ms/step - loss: 0.1126 - mae: 0.25
49 - val_loss: 0.1427 - val_mae: 0.3778
Epoch 138/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1121 - mae: 0.25
44 - val_loss: 0.1444 - val_mae: 0.3799
Epoch 139/250
1/1 [============== ] - 0s 38ms/step - loss: 0.1117 - mae: 0.25
37 - val_loss: 0.1459 - val_mae: 0.3820
Epoch 140/250
29 - val_loss: 0.1475 - val_mae: 0.3841
Epoch 141/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1108 - mae: 0.25
19 - val_loss: 0.1490 - val_mae: 0.3861
Epoch 142/250
08 - val_loss: 0.1506 - val_mae: 0.3880
Epoch 143/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1100 - mae: 0.24
96 - val_loss: 0.1520 - val_mae: 0.3899
Epoch 144/250
83 - val_loss: 0.1535 - val_mae: 0.3918
Epoch 145/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1093 - mae: 0.24
69 - val_loss: 0.1549 - val_mae: 0.3936
Epoch 146/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1089 - mae: 0.24
56 - val_loss: 0.1564 - val_mae: 0.3955
Epoch 147/250
1/1 [============= ] - 0s 53ms/step - loss: 0.1086 - mae: 0.24
54 - val_loss: 0.1578 - val_mae: 0.3973
Epoch 148/250
1/1 [============] - 0s 64ms/step - loss: 0.1083 - mae: 0.24
56 - val loss: 0.1592 - val mae: 0.3990
Epoch 149/250
1/1 [===========] - 0s 36ms/step - loss: 0.1080 - mae: 0.24
57 - val loss: 0.1607 - val mae: 0.4008
Epoch 150/250
57 - val loss: 0.1621 - val mae: 0.4026
Epoch 151/250
56 - val loss: 0.1635 - val mae: 0.4043
Epoch 152/250
1/1 [============= ] - 0s 29ms/step - loss: 0.1071 - mae: 0.24
54 - val_loss: 0.1649 - val_mae: 0.4061
Epoch 153/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1067 - mae: 0.24
50 - val loss: 0.1663 - val mae: 0.4078
Epoch 154/250
1/1 [============== ] - 0s 29ms/step - loss: 0.1064 - mae: 0.24
```

```
45 - val_loss: 0.1677 - val_mae: 0.4095
Epoch 155/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1060 - mae: 0.24
39 - val_loss: 0.1691 - val_mae: 0.4113
Epoch 156/250
33 - val_loss: 0.1705 - val_mae: 0.4130
Epoch 157/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1053 - mae: 0.24
25 - val_loss: 0.1719 - val_mae: 0.4147
Epoch 158/250
17 - val_loss: 0.1733 - val_mae: 0.4164
Epoch 159/250
09 - val_loss: 0.1747 - val_mae: 0.4180
Epoch 160/250
1/1 [============= ] - 0s 58ms/step - loss: 0.1042 - mae: 0.24
01 - val_loss: 0.1761 - val_mae: 0.4197
Epoch 161/250
1/1 [============= ] - 0s 35ms/step - loss: 0.1038 - mae: 0.23
92 - val_loss: 0.1775 - val_mae: 0.4213
Epoch 162/250
1/1 [============== ] - 0s 33ms/step - loss: 0.1034 - mae: 0.23
84 - val_loss: 0.1789 - val_mae: 0.4229
Epoch 163/250
82 - val_loss: 0.1802 - val_mae: 0.4246
Epoch 164/250
1/1 [============== ] - 0s 40ms/step - loss: 0.1027 - mae: 0.23
80 - val_loss: 0.1816 - val_mae: 0.4262
Epoch 165/250
79 - val_loss: 0.1830 - val_mae: 0.4277
Epoch 166/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1019 - mae: 0.23
76 - val_loss: 0.1843 - val_mae: 0.4293
Epoch 167/250
74 - val_loss: 0.1856 - val_mae: 0.4309
Epoch 168/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1012 - mae: 0.23
70 - val_loss: 0.1870 - val_mae: 0.4324
Epoch 169/250
1/1 [============== ] - 0s 33ms/step - loss: 0.1008 - mae: 0.23
66 - val_loss: 0.1883 - val_mae: 0.4339
Epoch 170/250
1/1 [============= ] - 0s 35ms/step - loss: 0.1005 - mae: 0.23
62 - val_loss: 0.1896 - val_mae: 0.4355
Epoch 171/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1001 - mae: 0.23
56 - val loss: 0.1909 - val mae: 0.4370
Epoch 172/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0997 - mae: 0.23
51 - val loss: 0.1923 - val mae: 0.4385
Epoch 173/250
44 - val loss: 0.1936 - val mae: 0.4400
Epoch 174/250
37 - val loss: 0.1949 - val mae: 0.4415
Epoch 175/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0986 - mae: 0.23
29 - val loss: 0.1963 - val mae: 0.4430
Epoch 176/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0982 - mae: 0.23
21 - val loss: 0.1976 - val mae: 0.4445
Epoch 177/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0978 - mae: 0.23
```

```
12 - val_loss: 0.1989 - val_mae: 0.4460
Epoch 178/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0975 - mae: 0.23
03 - val_loss: 0.2003 - val_mae: 0.4475
Epoch 179/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0971 - mae: 0.22
94 - val_loss: 0.2016 - val_mae: 0.4490
Epoch 180/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0968 - mae: 0.22
85 - val_loss: 0.2029 - val_mae: 0.4505
Epoch 181/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0964 - mae: 0.22
80 - val_loss: 0.2043 - val_mae: 0.4520
Epoch 182/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0961 - mae: 0.22
74 - val_loss: 0.2056 - val_mae: 0.4535
Epoch 183/250
1/1 [===========] - 0s 30ms/step - loss: 0.0957 - mae: 0.22
69 - val_loss: 0.2070 - val_mae: 0.4549
Epoch 184/250
63 - val_loss: 0.2083 - val_mae: 0.4564
Epoch 185/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0951 - mae: 0.22
57 - val_loss: 0.2097 - val_mae: 0.4579
Epoch 186/250
51 - val_loss: 0.2110 - val_mae: 0.4594
Epoch 187/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0945 - mae: 0.22
45 - val_loss: 0.2124 - val_mae: 0.4609
Epoch 188/250
44 - val_loss: 0.2138 - val_mae: 0.4623
Epoch 189/250
1/1 [============= ] - 0s 58ms/step - loss: 0.0939 - mae: 0.22
44 - val_loss: 0.2151 - val_mae: 0.4638
Epoch 190/250
44 - val_loss: 0.2165 - val_mae: 0.4653
Epoch 191/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0934 - mae: 0.22
43 - val_loss: 0.2178 - val_mae: 0.4667
Epoch 192/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0931 - mae: 0.22
43 - val_loss: 0.2192 - val_mae: 0.4682
Epoch 193/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0929 - mae: 0.22
42 - val_loss: 0.2205 - val_mae: 0.4696
Epoch 194/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0926 - mae: 0.22
41 - val loss: 0.2219 - val mae: 0.4711
Epoch 195/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0924 - mae: 0.22
40 - val loss: 0.2233 - val mae: 0.4725
Epoch 196/250
39 - val loss: 0.2246 - val mae: 0.4739
Epoch 197/250
40 - val loss: 0.2259 - val mae: 0.4753
Epoch 198/250
1/1 [============= ] - 0s 61ms/step - loss: 0.0918 - mae: 0.22
41 - val loss: 0.2273 - val mae: 0.4767
Epoch 199/250
1/1 [============= ] - 0s 50ms/step - loss: 0.0916 - mae: 0.22
43 - val loss: 0.2286 - val mae: 0.4781
Epoch 200/250
1/1 [============== ] - 0s 62ms/step - loss: 0.0914 - mae: 0.22
```

```
44 - val_loss: 0.2299 - val_mae: 0.4795
Epoch 201/250
1/1 [============= ] - 0s 58ms/step - loss: 0.0912 - mae: 0.22
45 - val_loss: 0.2312 - val_mae: 0.4809
Epoch 202/250
45 - val_loss: 0.2325 - val_mae: 0.4822
Epoch 203/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0908 - mae: 0.22
46 - val_loss: 0.2338 - val_mae: 0.4835
Epoch 204/250
1/1 [============ ] - 0s 43ms/step - loss: 0.0906 - mae: 0.22
46 - val_loss: 0.2351 - val_mae: 0.4848
Epoch 205/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0905 - mae: 0.22
46 - val_loss: 0.2363 - val_mae: 0.4861
Epoch 206/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0903 - mae: 0.22
46 - val_loss: 0.2376 - val_mae: 0.4874
Epoch 207/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0901 - mae: 0.22
46 - val_loss: 0.2388 - val_mae: 0.4886
Epoch 208/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0900 - mae: 0.22
45 - val_loss: 0.2400 - val_mae: 0.4899
Epoch 209/250
44 - val_loss: 0.2412 - val_mae: 0.4911
Epoch 210/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0897 - mae: 0.22
43 - val_loss: 0.2423 - val_mae: 0.4923
Epoch 211/250
42 - val_loss: 0.2435 - val_mae: 0.4935
Epoch 212/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0893 - mae: 0.22
40 - val_loss: 0.2446 - val_mae: 0.4946
Epoch 213/250
39 - val_loss: 0.2457 - val_mae: 0.4957
Epoch 214/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0890 - mae: 0.22
37 - val_loss: 0.2468 - val_mae: 0.4968
Epoch 215/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0889 - mae: 0.22
35 - val_loss: 0.2479 - val_mae: 0.4979
Epoch 216/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0887 - mae: 0.22
33 - val_loss: 0.2490 - val_mae: 0.4990
Epoch 217/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0886 - mae: 0.22
30 - val loss: 0.2500 - val mae: 0.5000
Epoch 218/250
1/1 [===========] - 0s 43ms/step - loss: 0.0885 - mae: 0.22
28 - val loss: 0.2510 - val mae: 0.5010
Epoch 219/250
25 - val loss: 0.2520 - val mae: 0.5020
Epoch 220/250
23 - val loss: 0.2530 - val mae: 0.5030
Epoch 221/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0880 - mae: 0.22
20 - val_loss: 0.2540 - val_mae: 0.5040
Epoch 222/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0879 - mae: 0.22
17 - val loss: 0.2549 - val mae: 0.5049
Epoch 223/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0878 - mae: 0.22
```

```
14 - val_loss: 0.2558 - val_mae: 0.5058
Epoch 224/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0876 - mae: 0.22
11 - val_loss: 0.2567 - val_mae: 0.5067
Epoch 225/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0875 - mae: 0.22
08 - val_loss: 0.2576 - val_mae: 0.5075
Epoch 226/250
05 - val_loss: 0.2585 - val_mae: 0.5084
Epoch 227/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0873 - mae: 0.22
02 - val_loss: 0.2593 - val_mae: 0.5092
Epoch 228/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0871 - mae: 0.21
99 - val_loss: 0.2601 - val_mae: 0.5100
Epoch 229/250
1/1 [===========] - 0s 35ms/step - loss: 0.0870 - mae: 0.21
95 - val_loss: 0.2609 - val_mae: 0.5108
Epoch 230/250
92 - val_loss: 0.2617 - val_mae: 0.5115
Epoch 231/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0868 - mae: 0.21
89 - val_loss: 0.2624 - val_mae: 0.5123
Epoch 232/250
86 - val_loss: 0.2632 - val_mae: 0.5130
Epoch 233/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0865 - mae: 0.21
83 - val_loss: 0.2639 - val_mae: 0.5137
Epoch 234/250
79 - val_loss: 0.2646 - val_mae: 0.5144
Epoch 235/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0863 - mae: 0.21
76 - val_loss: 0.2652 - val_mae: 0.5150
Epoch 236/250
73 - val_loss: 0.2659 - val_mae: 0.5157
Epoch 237/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0861 - mae: 0.21
70 - val_loss: 0.2665 - val_mae: 0.5163
Epoch 238/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0859 - mae: 0.21
67 - val_loss: 0.2671 - val_mae: 0.5169
Epoch 239/250
64 - val_loss: 0.2677 - val_mae: 0.5174
Epoch 240/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0857 - mae: 0.21
60 - val loss: 0.2683 - val mae: 0.5180
Epoch 241/250
1/1 [===========] - 0s 28ms/step - loss: 0.0856 - mae: 0.21
57 - val loss: 0.2689 - val mae: 0.5185
Epoch 242/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0855 - mae: 0.21
54 - val loss: 0.2694 - val mae: 0.5190
Epoch 243/250
51 - val loss: 0.2699 - val mae: 0.5195
Epoch 244/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0852 - mae: 0.21
48 - val_loss: 0.2704 - val_mae: 0.5200
Epoch 245/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0851 - mae: 0.21
45 - val loss: 0.2709 - val mae: 0.5205
Epoch 246/250
1/1 [=============== ] - 0s 36ms/step - loss: 0.0850 - mae: 0.21
```

```
42 - val_loss: 0.2714 - val_mae: 0.5210
Epoch 247/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0849 - mae: 0.21
38 - val_loss: 0.2719 - val_mae: 0.5214
Epoch 248/250
35 - val_loss: 0.2723 - val_mae: 0.5218
Epoch 249/250
32 - val_loss: 0.2727 - val_mae: 0.5222
Epoch 250/250
29 - val_loss: 0.2731 - val_mae: 0.5226
Epoch 1/250
2088 - val_loss: 7.4504 - val_mae: 2.7295
Epoch 2/250
1/1 [============] - 0s 31ms/step - loss: 10.5013 - mae: 2.9
848 - val_loss: 6.8050 - val_mae: 2.6086
Epoch 3/250
96 - val loss: 6.1273 - val mae: 2.4753
Epoch 4/250
1/1 [============== ] - 0s 30ms/step - loss: 8.3114 - mae: 2.53
33 - val_loss: 5.4886 - val_mae: 2.3428
Epoch 5/250
54 - val_loss: 4.9392 - val_mae: 2.2224
Epoch 6/250
1/1 [============== ] - 0s 31ms/step - loss: 6.6960 - mae: 2.09
57 - val_loss: 4.5035 - val_mae: 2.1221
Epoch 7/250
69 - val_loss: 4.2332 - val_mae: 2.0575
Epoch 8/250
1/1 [============= ] - 0s 37ms/step - loss: 5.4526 - mae: 1.73
08 - val_loss: 4.1696 - val_mae: 2.0420
Epoch 9/250
22 - val_loss: 4.2756 - val_mae: 2.0677
Epoch 10/250
1/1 [============== ] - 0s 30ms/step - loss: 4.1738 - mae: 1.44
60 - val_loss: 4.4503 - val_mae: 2.1096
Epoch 11/250
1/1 [============== ] - 0s 31ms/step - loss: 3.4851 - mae: 1.29
96 - val_loss: 4.5805 - val_mae: 2.1402
Epoch 12/250
34 - val_loss: 4.5766 - val_mae: 2.1393
Epoch 13/250
1/1 [============= ] - 0s 29ms/step - loss: 2.0963 - mae: 0.96
53 - val loss: 4.3565 - val mae: 2.0872
Epoch 14/250
1/1 [============ ] - 0s 30ms/step - loss: 1.4474 - mae: 0.76
34 - val loss: 3.8739 - val mae: 1.9682
Epoch 15/250
1/1 [============= ] - 0s 30ms/step - loss: 0.9250 - mae: 0.56
67 - val loss: 3.1388 - val mae: 1.7717
Epoch 16/250
34 - val loss: 2.2327 - val mae: 1.4942
Epoch 17/250
1/1 [============= ] - 0s 37ms/step - loss: 0.3844 - mae: 0.44
63 - val_loss: 1.3176 - val_mae: 1.1479
Epoch 18/250
1/1 [============ ] - 0s 29ms/step - loss: 0.3405 - mae: 0.45
60 - val loss: 0.5881 - val mae: 0.7668
Epoch 19/250
1/1 [============== ] - 0s 29ms/step - loss: 0.4063 - mae: 0.49
```

```
41 - val_loss: 0.1595 - val_mae: 0.3994
Epoch 20/250
77 - val_loss: 0.0071 - val_mae: 0.0841
Epoch 21/250
1/1 [============ ] - 0s 60ms/step - loss: 0.6018 - mae: 0.63
55 - val_loss: 0.0266 - val_mae: 0.1632
Epoch 22/250
1/1 [============ ] - 0s 34ms/step - loss: 0.6241 - mae: 0.66
11 - val_loss: 0.1174 - val_mae: 0.3427
Epoch 23/250
1/1 [============ ] - 0s 33ms/step - loss: 0.5844 - mae: 0.65
39 - val_loss: 0.2153 - val_mae: 0.4640
Epoch 24/250
82 - val_loss: 0.2930 - val_mae: 0.5413
Epoch 25/250
1/1 [============= ] - 0s 29ms/step - loss: 0.4120 - mae: 0.55
80 - val_loss: 0.3478 - val_mae: 0.5898
Epoch 26/250
1/1 [============= ] - 0s 29ms/step - loss: 0.3237 - mae: 0.48
32 - val_loss: 0.3883 - val_mae: 0.6231
Epoch 27/250
1/1 [============== ] - 0s 30ms/step - loss: 0.2499 - mae: 0.41
58 - val_loss: 0.4243 - val_mae: 0.6514
Epoch 28/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1937 - mae: 0.35
32 - val_loss: 0.4630 - val_mae: 0.6805
Epoch 29/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1544 - mae: 0.31
65 - val_loss: 0.5079 - val_mae: 0.7127
Epoch 30/250
50 - val_loss: 0.5580 - val_mae: 0.7470
Epoch 31/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1212 - mae: 0.28
19 - val_loss: 0.6086 - val_mae: 0.7802
Epoch 32/250
53 - val_loss: 0.6523 - val_mae: 0.8077
Epoch 33/250
1/1 [============== ] - 0s 29ms/step - loss: 0.1330 - mae: 0.28
21 - val_loss: 0.6804 - val_mae: 0.8248
Epoch 34/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1451 - mae: 0.29
70 - val_loss: 0.6857 - val_mae: 0.8281
Epoch 35/250
57 - val_loss: 0.6656 - val_mae: 0.8158
Epoch 36/250
64 - val loss: 0.6225 - val mae: 0.7890
Epoch 37/250
1/1 [============] - 0s 30ms/step - loss: 0.1537 - mae: 0.30
12 - val loss: 0.5631 - val mae: 0.7504
Epoch 38/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1446 - mae: 0.29
25 - val loss: 0.4961 - val mae: 0.7044
Epoch 39/250
96 - val loss: 0.4299 - val mae: 0.6557
Epoch 40/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1203 - mae: 0.26
49 - val_loss: 0.3706 - val_mae: 0.6088
Epoch 41/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1082 - mae: 0.24
74 - val loss: 0.3217 - val mae: 0.5672
Epoch 42/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0963 - mae: 0.22
```

```
97 - val_loss: 0.2840 - val_mae: 0.5329
Epoch 43/250
40 - val_loss: 0.2564 - val_mae: 0.5064
Epoch 44/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0733 - mae: 0.20
29 - val_loss: 0.2368 - val_mae: 0.4866
Epoch 45/250
21 - val_loss: 0.2222 - val_mae: 0.4714
Epoch 46/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0557 - mae: 0.18
34 - val_loss: 0.2099 - val_mae: 0.4582
Epoch 47/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0512 - mae: 0.17
88 - val_loss: 0.1972 - val_mae: 0.4441
Epoch 48/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0497 - mae: 0.17
74 - val_loss: 0.1822 - val_mae: 0.4268
Epoch 49/250
81 - val loss: 0.1643 - val mae: 0.4053
Epoch 50/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0518 - mae: 0.18
29 - val_loss: 0.1442 - val_mae: 0.3797
Epoch 51/250
54 - val_loss: 0.1235 - val_mae: 0.3515
Epoch 52/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0537 - mae: 0.18
50 - val_loss: 0.1043 - val_mae: 0.3230
Epoch 53/250
29 - val_loss: 0.0884 - val_mae: 0.2973
Epoch 54/250
1/1 [============== ] - 0s 51ms/step - loss: 0.0539 - mae: 0.18
17 - val_loss: 0.0767 - val_mae: 0.2770
Epoch 55/250
05 - val_loss: 0.0698 - val_mae: 0.2643
Epoch 56/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0533 - mae: 0.18
05 - val_loss: 0.0677 - val_mae: 0.2603
Epoch 57/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0522 - mae: 0.17
87 - val_loss: 0.0702 - val_mae: 0.2650
Epoch 58/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0503 - mae: 0.17
42 - val_loss: 0.0768 - val_mae: 0.2772
Epoch 59/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0478 - mae: 0.17
00 - val loss: 0.0869 - val mae: 0.2949
Epoch 60/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0452 - mae: 0.16
74 - val loss: 0.0994 - val mae: 0.3153
Epoch 61/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0427 - mae: 0.16
43 - val loss: 0.1128 - val mae: 0.3358
Epoch 62/250
18 - val loss: 0.1252 - val mae: 0.3538
Epoch 63/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0391 - mae: 0.15
86 - val loss: 0.1352 - val mae: 0.3677
Epoch 64/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0376 - mae: 0.15
44 - val loss: 0.1419 - val mae: 0.3767
Epoch 65/250
1/1 [=============== ] - 0s 40ms/step - loss: 0.0363 - mae: 0.14
```

```
93 - val_loss: 0.1454 - val_mae: 0.3813
Epoch 66/250
35 - val_loss: 0.1466 - val_mae: 0.3828
Epoch 67/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0338 - mae: 0.13
74 - val_loss: 0.1468 - val_mae: 0.3832
Epoch 68/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0330 - mae: 0.13
39 - val_loss: 0.1478 - val_mae: 0.3845
Epoch 69/250
33 - val_loss: 0.1509 - val_mae: 0.3884
Epoch 70/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0321 - mae: 0.13
34 - val_loss: 0.1570 - val_mae: 0.3962
Epoch 71/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0317 - mae: 0.13
27 - val_loss: 0.1666 - val_mae: 0.4082
Epoch 72/250
12 - val loss: 0.1797 - val mae: 0.4239
Epoch 73/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0305 - mae: 0.12
97 - val_loss: 0.1956 - val_mae: 0.4423
Epoch 74/250
76 - val_loss: 0.2132 - val_mae: 0.4617
Epoch 75/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0289 - mae: 0.12
56 - val_loss: 0.2308 - val_mae: 0.4804
Epoch 76/250
45 - val_loss: 0.2470 - val_mae: 0.4969
Epoch 77/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0273 - mae: 0.12
33 - val_loss: 0.2602 - val_mae: 0.5101
Epoch 78/250
15 - val_loss: 0.2698 - val_mae: 0.5194
Epoch 79/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0257 - mae: 0.11
92 - val_loss: 0.2757 - val_mae: 0.5251
Epoch 80/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0248 - mae: 0.11
64 - val_loss: 0.2786 - val_mae: 0.5278
Epoch 81/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0240 - mae: 0.11
45 - val_loss: 0.2793 - val_mae: 0.5285
Epoch 82/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0233 - mae: 0.11
34 - val loss: 0.2792 - val mae: 0.5283
Epoch 83/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0227 - mae: 0.11
25 - val loss: 0.2790 - val mae: 0.5282
Epoch 84/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0221 - mae: 0.11
16 - val loss: 0.2795 - val mae: 0.5287
Epoch 85/250
08 - val loss: 0.2809 - val mae: 0.5300
Epoch 86/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0211 - mae: 0.11
00 - val loss: 0.2829 - val mae: 0.5319
Epoch 87/250
1/1 [============= ] - 0s 52ms/step - loss: 0.0206 - mae: 0.10
93 - val loss: 0.2852 - val mae: 0.5340
Epoch 88/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0201 - mae: 0.10
```

```
86 - val_loss: 0.2871 - val_mae: 0.5358
Epoch 89/250
77 - val_loss: 0.2882 - val_mae: 0.5369
Epoch 90/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0192 - mae: 0.10
65 - val_loss: 0.2882 - val_mae: 0.5369
Epoch 91/250
51 - val_loss: 0.2871 - val_mae: 0.5358
Epoch 92/250
37 - val_loss: 0.2850 - val_mae: 0.5339
Epoch 93/250
21 - val_loss: 0.2825 - val_mae: 0.5315
Epoch 94/250
1/1 [============ ] - 0s 51ms/step - loss: 0.0174 - mae: 0.10
04 - val_loss: 0.2801 - val_mae: 0.5292
Epoch 95/250
87 - val_loss: 0.2781 - val_mae: 0.5274
Epoch 96/250
1/1 [============== ] - 0s 58ms/step - loss: 0.0166 - mae: 0.09
73 - val_loss: 0.2769 - val_mae: 0.5262
Epoch 97/250
1/1 [============] - 0s 59ms/step - loss: 0.0163 - mae: 0.09
59 - val_loss: 0.2765 - val_mae: 0.5259
Epoch 98/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0159 - mae: 0.09
47 - val_loss: 0.2768 - val_mae: 0.5261
Epoch 99/250
36 - val_loss: 0.2774 - val_mae: 0.5267
Epoch 100/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0153 - mae: 0.09
26 - val_loss: 0.2780 - val_mae: 0.5273
Epoch 101/250
15 - val_loss: 0.2783 - val_mae: 0.5276
Epoch 102/250
1/1 [============== ] - 0s 50ms/step - loss: 0.0147 - mae: 0.09
04 - val_loss: 0.2782 - val_mae: 0.5274
Epoch 103/250
1/1 [============== ] - 0s 49ms/step - loss: 0.0145 - mae: 0.08
93 - val_loss: 0.2775 - val_mae: 0.5267
Epoch 104/250
1/1 [============= ] - 0s 54ms/step - loss: 0.0143 - mae: 0.08
83 - val_loss: 0.2764 - val_mae: 0.5258
Epoch 105/250
1/1 [============= ] - 0s 47ms/step - loss: 0.0140 - mae: 0.08
74 - val loss: 0.2754 - val mae: 0.5248
Epoch 106/250
1/1 [===========] - 0s 46ms/step - loss: 0.0138 - mae: 0.08
65 - val loss: 0.2747 - val mae: 0.5241
Epoch 107/250
58 - val loss: 0.2746 - val mae: 0.5240
Epoch 108/250
53 - val loss: 0.2752 - val mae: 0.5246
Epoch 109/250
1/1 [============= ] - 0s 47ms/step - loss: 0.0132 - mae: 0.08
49 - val_loss: 0.2766 - val_mae: 0.5260
Epoch 110/250
1/1 [============= ] - 0s 49ms/step - loss: 0.0129 - mae: 0.08
45 - val loss: 0.2786 - val mae: 0.5279
Epoch 111/250
1/1 [============== ] - 0s 56ms/step - loss: 0.0127 - mae: 0.08
```

```
41 - val_loss: 0.2810 - val_mae: 0.5301
Epoch 112/250
1/1 [============ ] - 0s 60ms/step - loss: 0.0125 - mae: 0.08
37 - val_loss: 0.2832 - val_mae: 0.5322
Epoch 113/250
1/1 [============ ] - 0s 59ms/step - loss: 0.0123 - mae: 0.08
34 - val_loss: 0.2852 - val_mae: 0.5340
Epoch 114/250
1/1 [============ ] - 0s 57ms/step - loss: 0.0122 - mae: 0.08
31 - val_loss: 0.2866 - val_mae: 0.5354
Epoch 115/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0120 - mae: 0.08
28 - val_loss: 0.2874 - val_mae: 0.5361
Epoch 116/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0118 - mae: 0.08
26 - val_loss: 0.2877 - val_mae: 0.5364
Epoch 117/250
1/1 [=========== ] - 0s 33ms/step - loss: 0.0116 - mae: 0.08
24 - val_loss: 0.2878 - val_mae: 0.5365
Epoch 118/250
22 - val_loss: 0.2878 - val_mae: 0.5365
Epoch 119/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0113 - mae: 0.08
20 - val_loss: 0.2881 - val_mae: 0.5367
Epoch 120/250
17 - val_loss: 0.2887 - val_mae: 0.5373
Epoch 121/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0109 - mae: 0.08
15 - val_loss: 0.2898 - val_mae: 0.5383
Epoch 122/250
12 - val_loss: 0.2910 - val_mae: 0.5395
Epoch 123/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0106 - mae: 0.08
09 - val_loss: 0.2923 - val_mae: 0.5407
Epoch 124/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0104 - mae: 0.08
06 - val_loss: 0.2934 - val_mae: 0.5417
Epoch 125/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0103 - mae: 0.08
02 - val_loss: 0.2941 - val_mae: 0.5423
Epoch 126/250
1/1 [============== ] - 0s 49ms/step - loss: 0.0101 - mae: 0.07
99 - val_loss: 0.2941 - val_mae: 0.5423
Epoch 127/250
1/1 [============= ] - 0s 51ms/step - loss: 0.0100 - mae: 0.07
95 - val_loss: 0.2935 - val_mae: 0.5418
Epoch 128/250
1/1 [============= ] - 0s 53ms/step - loss: 0.0098 - mae: 0.07
91 - val loss: 0.2924 - val mae: 0.5408
Epoch 129/250
1/1 [============= ] - 0s 53ms/step - loss: 0.0097 - mae: 0.07
86 - val loss: 0.2910 - val mae: 0.5395
Epoch 130/250
82 - val loss: 0.2895 - val mae: 0.5381
Epoch 131/250
77 - val loss: 0.2881 - val mae: 0.5368
Epoch 132/250
1/1 [============= ] - 0s 51ms/step - loss: 0.0093 - mae: 0.07
72 - val_loss: 0.2870 - val_mae: 0.5357
Epoch 133/250
1/1 [============== ] - 0s 82ms/step - loss: 0.0091 - mae: 0.07
67 - val loss: 0.2862 - val mae: 0.5350
Epoch 134/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0090 - mae: 0.07
```

```
62 - val_loss: 0.2857 - val_mae: 0.5345
Epoch 135/250
1/1 [============= ] - 0s 60ms/step - loss: 0.0089 - mae: 0.07
57 - val_loss: 0.2853 - val_mae: 0.5341
Epoch 136/250
52 - val_loss: 0.2849 - val_mae: 0.5338
Epoch 137/250
47 - val_loss: 0.2843 - val_mae: 0.5332
Epoch 138/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0085 - mae: 0.07
42 - val_loss: 0.2835 - val_mae: 0.5325
Epoch 139/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0084 - mae: 0.07
37 - val_loss: 0.2825 - val_mae: 0.5315
Epoch 140/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0082 - mae: 0.07
33 - val_loss: 0.2812 - val_mae: 0.5303
Epoch 141/250
28 - val_loss: 0.2799 - val_mae: 0.5291
Epoch 142/250
1/1 [============== ] - 0s 52ms/step - loss: 0.0080 - mae: 0.07
23 - val_loss: 0.2786 - val_mae: 0.5278
Epoch 143/250
19 - val_loss: 0.2775 - val_mae: 0.5268
Epoch 144/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0078 - mae: 0.07
14 - val_loss: 0.2766 - val_mae: 0.5259
Epoch 145/250
10 - val_loss: 0.2760 - val_mae: 0.5254
Epoch 146/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0076 - mae: 0.07
06 - val_loss: 0.2756 - val_mae: 0.5250
Epoch 147/250
01 - val_loss: 0.2753 - val_mae: 0.5247
Epoch 148/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0074 - mae: 0.06
97 - val_loss: 0.2751 - val_mae: 0.5245
Epoch 149/250
1/1 [============== ] - 0s 59ms/step - loss: 0.0072 - mae: 0.06
92 - val_loss: 0.2749 - val_mae: 0.5243
Epoch 150/250
1/1 [============= ] - 0s 49ms/step - loss: 0.0071 - mae: 0.06
88 - val_loss: 0.2746 - val_mae: 0.5240
Epoch 151/250
1/1 [============ ] - 0s 47ms/step - loss: 0.0070 - mae: 0.06
83 - val loss: 0.2743 - val mae: 0.5237
Epoch 152/250
1/1 [============ ] - 0s 53ms/step - loss: 0.0069 - mae: 0.06
79 - val loss: 0.2739 - val mae: 0.5234
Epoch 153/250
74 - val loss: 0.2736 - val mae: 0.5230
Epoch 154/250
69 - val loss: 0.2733 - val mae: 0.5228
Epoch 155/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0067 - mae: 0.06
64 - val_loss: 0.2732 - val_mae: 0.5226
Epoch 156/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0066 - mae: 0.06
60 - val_loss: 0.2731 - val_mae: 0.5226
Epoch 157/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0065 - mae: 0.06
```

```
55 - val_loss: 0.2731 - val_mae: 0.5226
Epoch 158/250
1/1 [============ ] - 0s 47ms/step - loss: 0.0064 - mae: 0.06
50 - val_loss: 0.2732 - val_mae: 0.5226
Epoch 159/250
1/1 [============ ] - 0s 46ms/step - loss: 0.0063 - mae: 0.06
45 - val_loss: 0.2732 - val_mae: 0.5227
Epoch 160/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0062 - mae: 0.06
40 - val_loss: 0.2731 - val_mae: 0.5226
Epoch 161/250
1/1 [=========== ] - 0s 50ms/step - loss: 0.0061 - mae: 0.06
36 - val_loss: 0.2730 - val_mae: 0.5224
Epoch 162/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0060 - mae: 0.06
31 - val_loss: 0.2727 - val_mae: 0.5222
Epoch 163/250
1/1 [=========== ] - 0s 30ms/step - loss: 0.0060 - mae: 0.06
26 - val_loss: 0.2723 - val_mae: 0.5219
Epoch 164/250
22 - val_loss: 0.2719 - val_mae: 0.5215
Epoch 165/250
1/1 [============== ] - 0s 49ms/step - loss: 0.0058 - mae: 0.06
17 - val_loss: 0.2715 - val_mae: 0.5210
Epoch 166/250
13 - val_loss: 0.2711 - val_mae: 0.5206
Epoch 167/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0056 - mae: 0.06
09 - val_loss: 0.2706 - val_mae: 0.5202
Epoch 168/250
05 - val_loss: 0.2702 - val_mae: 0.5199
Epoch 169/250
1/1 [============== ] - 0s 53ms/step - loss: 0.0055 - mae: 0.06
01 - val_loss: 0.2699 - val_mae: 0.5195
Epoch 170/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0054 - mae: 0.05
97 - val_loss: 0.2694 - val_mae: 0.5191
Epoch 171/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0053 - mae: 0.05
92 - val_loss: 0.2690 - val_mae: 0.5186
Epoch 172/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0053 - mae: 0.05
88 - val_loss: 0.2685 - val_mae: 0.5182
Epoch 173/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0052 - mae: 0.05
84 - val_loss: 0.2680 - val_mae: 0.5177
Epoch 174/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0051 - mae: 0.05
80 - val loss: 0.2675 - val mae: 0.5172
Epoch 175/250
1/1 [============ ] - 0s 47ms/step - loss: 0.0050 - mae: 0.05
76 - val loss: 0.2670 - val mae: 0.5167
Epoch 176/250
71 - val loss: 0.2665 - val mae: 0.5163
Epoch 177/250
67 - val loss: 0.2661 - val mae: 0.5158
Epoch 178/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0048 - mae: 0.05
63 - val_loss: 0.2656 - val_mae: 0.5154
Epoch 179/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0048 - mae: 0.05
59 - val loss: 0.2652 - val mae: 0.5150
Epoch 180/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0047 - mae: 0.05
```

```
55 - val_loss: 0.2648 - val_mae: 0.5146
Epoch 181/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0046 - mae: 0.05
52 - val_loss: 0.2644 - val_mae: 0.5142
Epoch 182/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0046 - mae: 0.05
48 - val_loss: 0.2640 - val_mae: 0.5138
Epoch 183/250
45 - val_loss: 0.2636 - val_mae: 0.5134
Epoch 184/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0045 - mae: 0.05
41 - val_loss: 0.2632 - val_mae: 0.5130
Epoch 185/250
1/1 [============= ] - 0s 62ms/step - loss: 0.0044 - mae: 0.05
38 - val_loss: 0.2628 - val_mae: 0.5127
Epoch 186/250
1/1 [===========] - 0s 47ms/step - loss: 0.0043 - mae: 0.05
34 - val_loss: 0.2625 - val_mae: 0.5123
Epoch 187/250
31 - val_loss: 0.2621 - val_mae: 0.5120
Epoch 188/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0042 - mae: 0.05
27 - val_loss: 0.2618 - val_mae: 0.5117
Epoch 189/250
24 - val_loss: 0.2615 - val_mae: 0.5114
Epoch 190/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0041 - mae: 0.05
20 - val_loss: 0.2613 - val_mae: 0.5111
Epoch 191/250
17 - val_loss: 0.2610 - val_mae: 0.5109
Epoch 192/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0040 - mae: 0.05
13 - val_loss: 0.2607 - val_mae: 0.5106
Epoch 193/250
10 - val_loss: 0.2604 - val_mae: 0.5103
Epoch 194/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0039 - mae: 0.05
06 - val_loss: 0.2601 - val_mae: 0.5100
Epoch 195/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0038 - mae: 0.05
03 - val_loss: 0.2598 - val_mae: 0.5097
Epoch 196/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0038 - mae: 0.04
99 - val_loss: 0.2595 - val_mae: 0.5094
Epoch 197/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0037 - mae: 0.04
96 - val loss: 0.2593 - val mae: 0.5092
Epoch 198/250
1/1 [===========] - 0s 37ms/step - loss: 0.0037 - mae: 0.04
92 - val loss: 0.2590 - val mae: 0.5089
Epoch 199/250
89 - val loss: 0.2588 - val mae: 0.5087
Epoch 200/250
86 - val loss: 0.2586 - val mae: 0.5085
Epoch 201/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0036 - mae: 0.04
82 - val_loss: 0.2584 - val_mae: 0.5083
Epoch 202/250
1/1 [============= ] - 0s 57ms/step - loss: 0.0035 - mae: 0.04
79 - val_loss: 0.2581 - val_mae: 0.5081
Epoch 203/250
1/1 [=============== ] - 0s 40ms/step - loss: 0.0035 - mae: 0.04
```

```
75 - val_loss: 0.2579 - val_mae: 0.5079
Epoch 204/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0034 - mae: 0.04
72 - val_loss: 0.2577 - val_mae: 0.5077
Epoch 205/250
69 - val_loss: 0.2575 - val_mae: 0.5075
Epoch 206/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0033 - mae: 0.04
66 - val_loss: 0.2574 - val_mae: 0.5073
Epoch 207/250
1/1 [============ ] - 0s 73ms/step - loss: 0.0033 - mae: 0.04
62 - val_loss: 0.2572 - val_mae: 0.5072
Epoch 208/250
59 - val_loss: 0.2571 - val_mae: 0.5070
Epoch 209/250
1/1 [============ ] - 0s 56ms/step - loss: 0.0032 - mae: 0.04
56 - val_loss: 0.2570 - val_mae: 0.5069
Epoch 210/250
53 - val_loss: 0.2569 - val_mae: 0.5068
Epoch 211/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0031 - mae: 0.04
50 - val_loss: 0.2568 - val_mae: 0.5068
Epoch 212/250
47 - val_loss: 0.2567 - val_mae: 0.5067
Epoch 213/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0030 - mae: 0.04
44 - val_loss: 0.2567 - val_mae: 0.5066
Epoch 214/250
41 - val_loss: 0.2566 - val_mae: 0.5066
Epoch 215/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0030 - mae: 0.04
38 - val_loss: 0.2566 - val_mae: 0.5065
Epoch 216/250
35 - val_loss: 0.2566 - val_mae: 0.5065
Epoch 217/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0029 - mae: 0.04
32 - val_loss: 0.2565 - val_mae: 0.5065
Epoch 218/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0028 - mae: 0.04
29 - val_loss: 0.2566 - val_mae: 0.5065
Epoch 219/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0028 - mae: 0.04
26 - val_loss: 0.2566 - val_mae: 0.5065
Epoch 220/250
1/1 [============= ] - 0s 49ms/step - loss: 0.0028 - mae: 0.04
23 - val loss: 0.2566 - val mae: 0.5066
Epoch 221/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0027 - mae: 0.04
20 - val loss: 0.2567 - val mae: 0.5066
Epoch 222/250
17 - val loss: 0.2567 - val mae: 0.5067
Epoch 223/250
14 - val loss: 0.2568 - val mae: 0.5068
Epoch 224/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0026 - mae: 0.04
11 - val_loss: 0.2569 - val_mae: 0.5068
Epoch 225/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0026 - mae: 0.04
08 - val loss: 0.2570 - val mae: 0.5069
Epoch 226/250
1/1 [=============== ] - 0s 36ms/step - loss: 0.0026 - mae: 0.04
```

```
05 - val_loss: 0.2571 - val_mae: 0.5070
Epoch 227/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0025 - mae: 0.04
02 - val_loss: 0.2572 - val_mae: 0.5071
Epoch 228/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0025 - mae: 0.03
99 - val_loss: 0.2573 - val_mae: 0.5072
Epoch 229/250
1/1 [============ ] - 0s 49ms/step - loss: 0.0025 - mae: 0.03
96 - val_loss: 0.2574 - val_mae: 0.5074
Epoch 230/250
1/1 [============ ] - 0s 47ms/step - loss: 0.0024 - mae: 0.03
93 - val_loss: 0.2576 - val_mae: 0.5075
Epoch 231/250
1/1 [=========== ] - 0s 48ms/step - loss: 0.0024 - mae: 0.03
90 - val_loss: 0.2577 - val_mae: 0.5077
Epoch 232/250
1/1 [=========== ] - 0s 37ms/step - loss: 0.0024 - mae: 0.03
87 - val_loss: 0.2579 - val_mae: 0.5078
Epoch 233/250
84 - val_loss: 0.2581 - val_mae: 0.5080
Epoch 234/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0023 - mae: 0.03
81 - val_loss: 0.2582 - val_mae: 0.5082
Epoch 235/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0023 - mae: 0.03
78 - val_loss: 0.2584 - val_mae: 0.5084
Epoch 236/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0022 - mae: 0.03
76 - val_loss: 0.2587 - val_mae: 0.5086
Epoch 237/250
73 - val_loss: 0.2589 - val_mae: 0.5088
Epoch 238/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0022 - mae: 0.03
70 - val_loss: 0.2591 - val_mae: 0.5090
Epoch 239/250
67 - val_loss: 0.2594 - val_mae: 0.5093
Epoch 240/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0021 - mae: 0.03
64 - val_loss: 0.2597 - val_mae: 0.5096
Epoch 241/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0021 - mae: 0.03
61 - val_loss: 0.2600 - val_mae: 0.5099
Epoch 242/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0021 - mae: 0.03
59 - val_loss: 0.2603 - val_mae: 0.5102
Epoch 243/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0020 - mae: 0.03
56 - val loss: 0.2606 - val mae: 0.5105
Epoch 244/250
1/1 [===========] - 0s 32ms/step - loss: 0.0020 - mae: 0.03
53 - val loss: 0.2609 - val mae: 0.5108
Epoch 245/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0020 - mae: 0.03
50 - val loss: 0.2613 - val mae: 0.5111
Epoch 246/250
48 - val loss: 0.2616 - val mae: 0.5115
Epoch 247/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0019 - mae: 0.03
45 - val_loss: 0.2620 - val_mae: 0.5119
Epoch 248/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0019 - mae: 0.03
42 - val_loss: 0.2624 - val_mae: 0.5122
Epoch 249/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0019 - mae: 0.03
```

```
39 - val_loss: 0.2628 - val_mae: 0.5126
Epoch 250/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0019 - mae: 0.03
37 - val_loss: 0.2632 - val_mae: 0.5131
Epoch 1/250
1/1 [============] - 1s 728ms/step - loss: 12.5304 - mae: 3.
4828 - val_loss: 10.4306 - val_mae: 3.2296
Epoch 2/250
1/1 [============= ] - 0s 32ms/step - loss: 11.6401 - mae: 3.3
537 - val_loss: 10.1509 - val_mae: 3.1860
Epoch 3/250
410 - val_loss: 9.8053 - val_mae: 3.1313
Epoch 4/250
378 - val_loss: 9.3682 - val_mae: 3.0607
Epoch 5/250
92 - val_loss: 8.8559 - val_mae: 2.9759
Epoch 6/250
27 - val_loss: 8.3121 - val_mae: 2.8831
Epoch 7/250
1/1 [============== ] - 0s 36ms/step - loss: 8.4599 - mae: 2.84
56 - val_loss: 7.7675 - val_mae: 2.7870
Epoch 8/250
54 - val_loss: 7.2388 - val_mae: 2.6905
Epoch 9/250
1/1 [============== ] - 0s 40ms/step - loss: 7.3624 - mae: 2.64
02 - val_loss: 6.7345 - val_mae: 2.5951
Epoch 10/250
87 - val_loss: 6.2567 - val_mae: 2.5013
Epoch 11/250
1/1 [============== ] - 0s 40ms/step - loss: 6.2572 - mae: 2.40
99 - val_loss: 5.8039 - val_mae: 2.4091
Epoch 12/250
26 - val_loss: 5.3728 - val_mae: 2.3179
Epoch 13/250
1/1 [============== ] - 0s 36ms/step - loss: 5.1464 - mae: 2.14
61 - val_loss: 4.9575 - val_mae: 2.2266
Epoch 14/250
1/1 [============== ] - 0s 38ms/step - loss: 4.5977 - mae: 1.99
95 - val_loss: 4.5525 - val_mae: 2.1337
Epoch 15/250
1/1 [============= ] - 0s 39ms/step - loss: 4.0614 - mae: 1.84
24 - val_loss: 4.1521 - val_mae: 2.0377
Epoch 16/250
39 - val loss: 3.7514 - val mae: 1.9368
Epoch 17/250
1/1 [============ ] - 0s 34ms/step - loss: 3.0549 - mae: 1.50
85 - val loss: 3.3459 - val mae: 1.8292
Epoch 18/250
1/1 [============= ] - 0s 36ms/step - loss: 2.5979 - mae: 1.36
12 - val loss: 2.9321 - val mae: 1.7123
Epoch 19/250
03 - val loss: 2.5048 - val mae: 1.5827
Epoch 20/250
1/1 [============ ] - 0s 30ms/step - loss: 1.8212 - mae: 1.12
21 - val_loss: 2.0630 - val_mae: 1.4363
Epoch 21/250
1/1 [============ ] - 0s 30ms/step - loss: 1.5127 - mae: 1.00
71 - val loss: 1.6145 - val mae: 1.2706
Epoch 22/250
1/1 [============== ] - 0s 33ms/step - loss: 1.2573 - mae: 0.89
```

```
94 - val_loss: 1.1802 - val_mae: 1.0864
Epoch 23/250
70 - val_loss: 0.7882 - val_mae: 0.8878
Epoch 24/250
1/1 [============= ] - 0s 40ms/step - loss: 0.8841 - mae: 0.76
21 - val_loss: 0.4659 - val_mae: 0.6826
Epoch 25/250
35 - val_loss: 0.2306 - val_mae: 0.4802
Epoch 26/250
1/1 [============ ] - 0s 33ms/step - loss: 0.6328 - mae: 0.64
20 - val_loss: 0.0839 - val_mae: 0.2897
Epoch 27/250
1/1 [============= ] - 0s 34ms/step - loss: 0.5254 - mae: 0.57
01 - val_loss: 0.0141 - val_mae: 0.1186
Epoch 28/250
1/1 [===========] - 0s 42ms/step - loss: 0.4355 - mae: 0.53
66 - val_loss: 7.9787e-04 - val_mae: 0.0282
Epoch 29/250
1/1 [============ ] - 0s 47ms/step - loss: 0.3780 - mae: 0.53
53 - val_loss: 0.0221 - val_mae: 0.1487
Epoch 30/250
1/1 [============= ] - 0s 37ms/step - loss: 0.3639 - mae: 0.52
16 - val_loss: 0.0593 - val_mae: 0.2435
Epoch 31/250
66 - val_loss: 0.0984 - val_mae: 0.3136
Epoch 32/250
1/1 [============== ] - 0s 46ms/step - loss: 0.4070 - mae: 0.49
56 - val_loss: 0.1295 - val_mae: 0.3599
Epoch 33/250
91 - val_loss: 0.1474 - val_mae: 0.3839
Epoch 34/250
1/1 [============== ] - 0s 43ms/step - loss: 0.3624 - mae: 0.47
71 - val_loss: 0.1509 - val_mae: 0.3884
Epoch 35/250
48 - val_loss: 0.1425 - val_mae: 0.3775
Epoch 36/250
1/1 [============== ] - 0s 37ms/step - loss: 0.2600 - mae: 0.41
58 - val_loss: 0.1262 - val_mae: 0.3553
Epoch 37/250
24 - val_loss: 0.1062 - val_mae: 0.3259
Epoch 38/250
1/1 [============= ] - 0s 39ms/step - loss: 0.1802 - mae: 0.35
85 - val_loss: 0.0857 - val_mae: 0.2927
Epoch 39/250
1/1 [============= ] - 0s 73ms/step - loss: 0.1561 - mae: 0.33
80 - val loss: 0.0668 - val mae: 0.2585
Epoch 40/250
1/1 [============= ] - 0s 44ms/step - loss: 0.1411 - mae: 0.32
20 - val loss: 0.0508 - val mae: 0.2255
Epoch 41/250
96 - val loss: 0.0380 - val mae: 0.1950
Epoch 42/250
74 - val loss: 0.0282 - val mae: 0.1681
Epoch 43/250
1/1 [============= ] - 0s 45ms/step - loss: 0.1282 - mae: 0.28
57 - val_loss: 0.0211 - val_mae: 0.1453
Epoch 44/250
1/1 [============== ] - 0s 35ms/step - loss: 0.1281 - mae: 0.27
88 - val loss: 0.0161 - val mae: 0.1269
Epoch 45/250
1/1 [============== ] - 0s 35ms/step - loss: 0.1282 - mae: 0.27
```

```
47 - val_loss: 0.0128 - val_mae: 0.1129
Epoch 46/250
70 - val_loss: 0.0106 - val_mae: 0.1030
Epoch 47/250
1/1 [============= ] - 0s 34ms/step - loss: 0.1269 - mae: 0.28
16 - val_loss: 0.0094 - val_mae: 0.0968
Epoch 48/250
1/1 [============ ] - 0s 34ms/step - loss: 0.1250 - mae: 0.28
49 - val_loss: 0.0088 - val_mae: 0.0936
Epoch 49/250
65 - val_loss: 0.0086 - val_mae: 0.0928
Epoch 50/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1195 - mae: 0.28
73 - val_loss: 0.0088 - val_mae: 0.0937
Epoch 51/250
1/1 [=========== ] - 0s 34ms/step - loss: 0.1161 - mae: 0.28
71 - val_loss: 0.0091 - val_mae: 0.0955
Epoch 52/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1125 - mae: 0.28
58 - val loss: 0.0095 - val mae: 0.0975
Epoch 53/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1088 - mae: 0.28
34 - val_loss: 0.0098 - val_mae: 0.0991
Epoch 54/250
98 - val_loss: 0.0099 - val_mae: 0.0995
Epoch 55/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1015 - mae: 0.27
50 - val_loss: 0.0097 - val_mae: 0.0985
Epoch 56/250
92 - val_loss: 0.0091 - val_mae: 0.0954
Epoch 57/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0944 - mae: 0.26
25 - val_loss: 0.0081 - val_mae: 0.0903
Epoch 58/250
50 - val_loss: 0.0069 - val_mae: 0.0829
Epoch 59/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0875 - mae: 0.24
83 - val_loss: 0.0054 - val_mae: 0.0733
Epoch 60/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0842 - mae: 0.24
06 - val_loss: 0.0038 - val_mae: 0.0619
Epoch 61/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0811 - mae: 0.23
41 - val_loss: 0.0024 - val_mae: 0.0487
Epoch 62/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0782 - mae: 0.22
90 - val loss: 0.0012 - val mae: 0.0344
Epoch 63/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0756 - mae: 0.22
42 - val loss: 3.6896e-04 - val mae: 0.0192
Epoch 64/250
98 - val loss: 1.3635e-05 - val mae: 0.0037
Epoch 65/250
72 - val loss: 1.3759e-04 - val mae: 0.0117
Epoch 66/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0696 - mae: 0.21
57 - val_loss: 7.1021e-04 - val_mae: 0.0266
Epoch 67/250
41 - val loss: 0.0017 - val mae: 0.0407
Epoch 68/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0671 - mae: 0.21
```

```
25 - val_loss: 0.0029 - val_mae: 0.0536
Epoch 69/250
09 - val_loss: 0.0043 - val_mae: 0.0652
Epoch 70/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0654 - mae: 0.20
93 - val_loss: 0.0057 - val_mae: 0.0753
Epoch 71/250
78 - val_loss: 0.0070 - val_mae: 0.0838
Epoch 72/250
63 - val_loss: 0.0083 - val_mae: 0.0908
Epoch 73/250
49 - val_loss: 0.0093 - val_mae: 0.0964
Epoch 74/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0625 - mae: 0.20
36 - val_loss: 0.0101 - val_mae: 0.1007
Epoch 75/250
23 - val_loss: 0.0108 - val_mae: 0.1038
Epoch 76/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0611 - mae: 0.20
10 - val_loss: 0.0112 - val_mae: 0.1059
Epoch 77/250
98 - val_loss: 0.0115 - val_mae: 0.1073
Epoch 78/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0597 - mae: 0.19
87 - val_loss: 0.0117 - val_mae: 0.1081
Epoch 79/250
76 - val_loss: 0.0118 - val_mae: 0.1085
Epoch 80/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0584 - mae: 0.19
64 - val_loss: 0.0118 - val_mae: 0.1087
Epoch 81/250
53 - val_loss: 0.0118 - val_mae: 0.1087
Epoch 82/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0570 - mae: 0.19
42 - val_loss: 0.0118 - val_mae: 0.1087
Epoch 83/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0563 - mae: 0.19
30 - val_loss: 0.0118 - val_mae: 0.1087
Epoch 84/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0556 - mae: 0.19
19 - val_loss: 0.0118 - val_mae: 0.1087
Epoch 85/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0548 - mae: 0.19
07 - val loss: 0.0118 - val mae: 0.1086
Epoch 86/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0540 - mae: 0.18
95 - val loss: 0.0118 - val mae: 0.1085
Epoch 87/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0533 - mae: 0.18
82 - val loss: 0.0117 - val mae: 0.1081
Epoch 88/250
69 - val loss: 0.0116 - val mae: 0.1075
Epoch 89/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0518 - mae: 0.18
56 - val_loss: 0.0114 - val_mae: 0.1066
Epoch 90/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0511 - mae: 0.18
43 - val_loss: 0.0111 - val_mae: 0.1053
Epoch 91/250
1/1 [=============== ] - 0s 42ms/step - loss: 0.0504 - mae: 0.18
```

```
29 - val_loss: 0.0107 - val_mae: 0.1036
Epoch 92/250
15 - val_loss: 0.0103 - val_mae: 0.1015
Epoch 93/250
1/1 [============= ] - 0s 54ms/step - loss: 0.0491 - mae: 0.18
01 - val_loss: 0.0098 - val_mae: 0.0990
Epoch 94/250
86 - val_loss: 0.0092 - val_mae: 0.0962
Epoch 95/250
71 - val_loss: 0.0087 - val_mae: 0.0930
Epoch 96/250
56 - val_loss: 0.0080 - val_mae: 0.0897
Epoch 97/250
41 - val_loss: 0.0074 - val_mae: 0.0863
Epoch 98/250
25 - val_loss: 0.0069 - val_mae: 0.0829
Epoch 99/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0454 - mae: 0.17
09 - val_loss: 0.0063 - val_mae: 0.0796
Epoch 100/250
92 - val_loss: 0.0058 - val_mae: 0.0765
Epoch 101/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0443 - mae: 0.16
76 - val_loss: 0.0054 - val_mae: 0.0736
Epoch 102/250
59 - val_loss: 0.0051 - val_mae: 0.0711
Epoch 103/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0433 - mae: 0.16
43 - val_loss: 0.0048 - val_mae: 0.0690
Epoch 104/250
28 - val_loss: 0.0045 - val_mae: 0.0672
Epoch 105/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0424 - mae: 0.16
14 - val_loss: 0.0043 - val_mae: 0.0658
Epoch 106/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0419 - mae: 0.16
05 - val_loss: 0.0042 - val_mae: 0.0647
Epoch 107/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0414 - mae: 0.15
97 - val_loss: 0.0041 - val_mae: 0.0640
Epoch 108/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0410 - mae: 0.15
88 - val loss: 0.0040 - val mae: 0.0634
Epoch 109/250
1/1 [===========] - 0s 30ms/step - loss: 0.0405 - mae: 0.15
80 - val loss: 0.0040 - val mae: 0.0631
Epoch 110/250
72 - val loss: 0.0040 - val mae: 0.0629
Epoch 111/250
65 - val loss: 0.0039 - val mae: 0.0628
Epoch 112/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0393 - mae: 0.15
57 - val_loss: 0.0039 - val_mae: 0.0628
Epoch 113/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0388 - mae: 0.15
50 - val loss: 0.0039 - val mae: 0.0628
Epoch 114/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0384 - mae: 0.15
```

```
44 - val_loss: 0.0040 - val_mae: 0.0628
Epoch 115/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0380 - mae: 0.15
40 - val_loss: 0.0040 - val_mae: 0.0629
Epoch 116/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0376 - mae: 0.15
37 - val_loss: 0.0040 - val_mae: 0.0631
Epoch 117/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0373 - mae: 0.15
34 - val_loss: 0.0040 - val_mae: 0.0634
Epoch 118/250
1/1 [=========== ] - 0s 33ms/step - loss: 0.0369 - mae: 0.15
30 - val_loss: 0.0041 - val_mae: 0.0637
Epoch 119/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0365 - mae: 0.15
27 - val_loss: 0.0041 - val_mae: 0.0642
Epoch 120/250
1/1 [===========] - 0s 32ms/step - loss: 0.0362 - mae: 0.15
23 - val_loss: 0.0042 - val_mae: 0.0648
Epoch 121/250
19 - val_loss: 0.0043 - val_mae: 0.0656
Epoch 122/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0355 - mae: 0.15
14 - val_loss: 0.0044 - val_mae: 0.0666
Epoch 123/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0351 - mae: 0.15
09 - val_loss: 0.0046 - val_mae: 0.0677
Epoch 124/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0348 - mae: 0.15
03 - val_loss: 0.0047 - val_mae: 0.0689
Epoch 125/250
97 - val_loss: 0.0049 - val_mae: 0.0702
Epoch 126/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0341 - mae: 0.14
90 - val_loss: 0.0051 - val_mae: 0.0716
Epoch 127/250
83 - val_loss: 0.0053 - val_mae: 0.0729
Epoch 128/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0335 - mae: 0.14
77 - val_loss: 0.0055 - val_mae: 0.0742
Epoch 129/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0332 - mae: 0.14
69 - val_loss: 0.0057 - val_mae: 0.0753
Epoch 130/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0329 - mae: 0.14
62 - val_loss: 0.0058 - val_mae: 0.0764
Epoch 131/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0326 - mae: 0.14
55 - val loss: 0.0060 - val mae: 0.0772
Epoch 132/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0323 - mae: 0.14
48 - val loss: 0.0061 - val mae: 0.0778
Epoch 133/250
41 - val loss: 0.0061 - val mae: 0.0782
Epoch 134/250
35 - val loss: 0.0061 - val mae: 0.0784
Epoch 135/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0315 - mae: 0.14
29 - val_loss: 0.0061 - val_mae: 0.0783
Epoch 136/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0312 - mae: 0.14
25 - val_loss: 0.0061 - val_mae: 0.0781
Epoch 137/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0309 - mae: 0.14
```

```
22 - val_loss: 0.0060 - val_mae: 0.0777
Epoch 138/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0307 - mae: 0.14
19 - val_loss: 0.0060 - val_mae: 0.0772
Epoch 139/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0304 - mae: 0.14
16 - val_loss: 0.0059 - val_mae: 0.0766
Epoch 140/250
1/1 [============= ] - 0s 61ms/step - loss: 0.0301 - mae: 0.14
13 - val_loss: 0.0058 - val_mae: 0.0759
Epoch 141/250
1/1 [============ ] - 0s 53ms/step - loss: 0.0299 - mae: 0.14
10 - val_loss: 0.0057 - val_mae: 0.0752
Epoch 142/250
1/1 [============= ] - 0s 52ms/step - loss: 0.0296 - mae: 0.14
06 - val_loss: 0.0055 - val_mae: 0.0745
Epoch 143/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0294 - mae: 0.14
02 - val_loss: 0.0054 - val_mae: 0.0737
Epoch 144/250
98 - val_loss: 0.0053 - val_mae: 0.0730
Epoch 145/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0289 - mae: 0.13
94 - val_loss: 0.0052 - val_mae: 0.0723
Epoch 146/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0286 - mae: 0.13
90 - val_loss: 0.0051 - val_mae: 0.0716
Epoch 147/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0284 - mae: 0.13
85 - val_loss: 0.0050 - val_mae: 0.0710
Epoch 148/250
81 - val_loss: 0.0050 - val_mae: 0.0704
Epoch 149/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0279 - mae: 0.13
77 - val_loss: 0.0049 - val_mae: 0.0698
Epoch 150/250
1/1 [============== ] - 0s 28ms/step - loss: 0.0276 - mae: 0.13
72 - val_loss: 0.0048 - val_mae: 0.0693
Epoch 151/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0274 - mae: 0.13
68 - val_loss: 0.0047 - val_mae: 0.0688
Epoch 152/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0272 - mae: 0.13
64 - val_loss: 0.0047 - val_mae: 0.0684
Epoch 153/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0269 - mae: 0.13
60 - val_loss: 0.0046 - val_mae: 0.0680
Epoch 154/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0267 - mae: 0.13
56 - val loss: 0.0046 - val mae: 0.0677
Epoch 155/250
1/1 [===========] - 0s 30ms/step - loss: 0.0265 - mae: 0.13
52 - val loss: 0.0045 - val mae: 0.0675
Epoch 156/250
48 - val loss: 0.0045 - val mae: 0.0673
Epoch 157/250
43 - val loss: 0.0045 - val mae: 0.0673
Epoch 158/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0258 - mae: 0.13
39 - val_loss: 0.0045 - val_mae: 0.0673
Epoch 159/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0256 - mae: 0.13
35 - val loss: 0.0046 - val mae: 0.0675
Epoch 160/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0254 - mae: 0.13
```

```
30 - val_loss: 0.0046 - val_mae: 0.0677
Epoch 161/250
1/1 [============= ] - 0s 56ms/step - loss: 0.0251 - mae: 0.13
26 - val_loss: 0.0046 - val_mae: 0.0680
Epoch 162/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0249 - mae: 0.13
21 - val_loss: 0.0047 - val_mae: 0.0684
Epoch 163/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0247 - mae: 0.13
16 - val_loss: 0.0047 - val_mae: 0.0689
Epoch 164/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0245 - mae: 0.13
11 - val_loss: 0.0048 - val_mae: 0.0694
Epoch 165/250
05 - val_loss: 0.0049 - val_mae: 0.0699
Epoch 166/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0240 - mae: 0.13
00 - val_loss: 0.0050 - val_mae: 0.0704
Epoch 167/250
95 - val_loss: 0.0050 - val_mae: 0.0710
Epoch 168/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0236 - mae: 0.12
89 - val_loss: 0.0051 - val_mae: 0.0715
Epoch 169/250
84 - val_loss: 0.0052 - val_mae: 0.0721
Epoch 170/250
78 - val_loss: 0.0053 - val_mae: 0.0726
Epoch 171/250
73 - val_loss: 0.0054 - val_mae: 0.0732
Epoch 172/250
1/1 [============== ] - 0s 85ms/step - loss: 0.0227 - mae: 0.12
67 - val_loss: 0.0054 - val_mae: 0.0737
Epoch 173/250
62 - val_loss: 0.0055 - val_mae: 0.0743
Epoch 174/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0223 - mae: 0.12
56 - val_loss: 0.0056 - val_mae: 0.0749
Epoch 175/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0221 - mae: 0.12
50 - val_loss: 0.0057 - val_mae: 0.0755
Epoch 176/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0219 - mae: 0.12
45 - val_loss: 0.0058 - val_mae: 0.0761
Epoch 177/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0217 - mae: 0.12
39 - val loss: 0.0059 - val mae: 0.0768
Epoch 178/250
1/1 [===========] - 0s 38ms/step - loss: 0.0215 - mae: 0.12
33 - val loss: 0.0060 - val mae: 0.0775
Epoch 179/250
27 - val loss: 0.0061 - val mae: 0.0783
Epoch 180/250
21 - val loss: 0.0062 - val mae: 0.0790
Epoch 181/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0209 - mae: 0.12
15 - val_loss: 0.0064 - val_mae: 0.0799
Epoch 182/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0207 - mae: 0.12
09 - val loss: 0.0065 - val mae: 0.0807
Epoch 183/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0204 - mae: 0.12
```

```
02 - val_loss: 0.0067 - val_mae: 0.0816
Epoch 184/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0202 - mae: 0.11
96 - val_loss: 0.0068 - val_mae: 0.0825
Epoch 185/250
1/1 [============= ] - 0s 61ms/step - loss: 0.0200 - mae: 0.11
90 - val_loss: 0.0070 - val_mae: 0.0834
Epoch 186/250
84 - val_loss: 0.0071 - val_mae: 0.0844
Epoch 187/250
77 - val_loss: 0.0073 - val_mae: 0.0853
Epoch 188/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0195 - mae: 0.11
71 - val_loss: 0.0075 - val_mae: 0.0863
Epoch 189/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0193 - mae: 0.11
65 - val_loss: 0.0076 - val_mae: 0.0873
Epoch 190/250
58 - val_loss: 0.0078 - val_mae: 0.0884
Epoch 191/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0189 - mae: 0.11
52 - val_loss: 0.0080 - val_mae: 0.0894
Epoch 192/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0187 - mae: 0.11
45 - val_loss: 0.0082 - val_mae: 0.0905
Epoch 193/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0185 - mae: 0.11
39 - val_loss: 0.0084 - val_mae: 0.0916
Epoch 194/250
33 - val_loss: 0.0086 - val_mae: 0.0927
Epoch 195/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0181 - mae: 0.11
27 - val_loss: 0.0088 - val_mae: 0.0938
Epoch 196/250
21 - val_loss: 0.0090 - val_mae: 0.0950
Epoch 197/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0178 - mae: 0.11
15 - val_loss: 0.0092 - val_mae: 0.0961
Epoch 198/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0176 - mae: 0.11
09 - val_loss: 0.0095 - val_mae: 0.0973
Epoch 199/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0174 - mae: 0.11
03 - val_loss: 0.0097 - val_mae: 0.0985
Epoch 200/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0172 - mae: 0.10
97 - val loss: 0.0099 - val mae: 0.0996
Epoch 201/250
1/1 [===========] - 0s 33ms/step - loss: 0.0170 - mae: 0.10
91 - val loss: 0.0102 - val mae: 0.1008
Epoch 202/250
85 - val loss: 0.0104 - val mae: 0.1019
Epoch 203/250
79 - val loss: 0.0106 - val mae: 0.1031
Epoch 204/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0165 - mae: 0.10
73 - val_loss: 0.0109 - val_mae: 0.1042
Epoch 205/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0163 - mae: 0.10
67 - val_loss: 0.0111 - val_mae: 0.1053
Epoch 206/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0161 - mae: 0.10
```

```
61 - val_loss: 0.0113 - val_mae: 0.1064
Epoch 207/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0160 - mae: 0.10
55 - val_loss: 0.0116 - val_mae: 0.1075
Epoch 208/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0158 - mae: 0.10
49 - val_loss: 0.0118 - val_mae: 0.1086
Epoch 209/250
43 - val_loss: 0.0120 - val_mae: 0.1096
Epoch 210/250
37 - val_loss: 0.0122 - val_mae: 0.1106
Epoch 211/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0153 - mae: 0.10
31 - val_loss: 0.0124 - val_mae: 0.1115
Epoch 212/250
1/1 [============] - 0s 35ms/step - loss: 0.0151 - mae: 0.10
25 - val_loss: 0.0126 - val_mae: 0.1125
Epoch 213/250
18 - val_loss: 0.0128 - val_mae: 0.1133
Epoch 214/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0148 - mae: 0.10
12 - val_loss: 0.0130 - val_mae: 0.1142
Epoch 215/250
06 - val_loss: 0.0132 - val_mae: 0.1150
Epoch 216/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0144 - mae: 0.09
99 - val_loss: 0.0134 - val_mae: 0.1158
Epoch 217/250
94 - val_loss: 0.0136 - val_mae: 0.1165
Epoch 218/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0141 - mae: 0.09
89 - val_loss: 0.0137 - val_mae: 0.1172
Epoch 219/250
84 - val_loss: 0.0139 - val_mae: 0.1178
Epoch 220/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0138 - mae: 0.09
78 - val_loss: 0.0140 - val_mae: 0.1184
Epoch 221/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0136 - mae: 0.09
73 - val_loss: 0.0142 - val_mae: 0.1190
Epoch 222/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0134 - mae: 0.09
67 - val_loss: 0.0143 - val_mae: 0.1196
Epoch 223/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0133 - mae: 0.09
62 - val loss: 0.0144 - val mae: 0.1202
Epoch 224/250
1/1 [===========] - 0s 32ms/step - loss: 0.0131 - mae: 0.09
56 - val loss: 0.0146 - val mae: 0.1207
Epoch 225/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0130 - mae: 0.09
51 - val loss: 0.0147 - val mae: 0.1213
Epoch 226/250
45 - val loss: 0.0148 - val mae: 0.1218
Epoch 227/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0126 - mae: 0.09
39 - val_loss: 0.0150 - val_mae: 0.1223
Epoch 228/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0125 - mae: 0.09
33 - val_loss: 0.0151 - val_mae: 0.1228
Epoch 229/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0123 - mae: 0.09
```

```
28 - val_loss: 0.0152 - val_mae: 0.1233
Epoch 230/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0122 - mae: 0.09
22 - val_loss: 0.0153 - val_mae: 0.1238
Epoch 231/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0120 - mae: 0.09
16 - val_loss: 0.0155 - val_mae: 0.1243
Epoch 232/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0119 - mae: 0.09
10 - val_loss: 0.0156 - val_mae: 0.1248
Epoch 233/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0117 - mae: 0.09
04 - val_loss: 0.0157 - val_mae: 0.1253
Epoch 234/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0116 - mae: 0.08
98 - val_loss: 0.0158 - val_mae: 0.1258
Epoch 235/250
1/1 [=========== ] - 0s 32ms/step - loss: 0.0114 - mae: 0.08
92 - val_loss: 0.0160 - val_mae: 0.1263
Epoch 236/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0113 - mae: 0.08
86 - val_loss: 0.0161 - val_mae: 0.1268
Epoch 237/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0112 - mae: 0.08
80 - val_loss: 0.0162 - val_mae: 0.1273
Epoch 238/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0110 - mae: 0.08
74 - val_loss: 0.0163 - val_mae: 0.1277
Epoch 239/250
1/1 [=========== ] - 0s 33ms/step - loss: 0.0109 - mae: 0.08
69 - val_loss: 0.0164 - val_mae: 0.1282
Epoch 240/250
63 - val_loss: 0.0166 - val_mae: 0.1287
Epoch 241/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0106 - mae: 0.08
58 - val_loss: 0.0167 - val_mae: 0.1292
Epoch 242/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0104 - mae: 0.08
52 - val_loss: 0.0168 - val_mae: 0.1296
Epoch 243/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0103 - mae: 0.08
46 - val_loss: 0.0169 - val_mae: 0.1301
Epoch 244/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0102 - mae: 0.08
40 - val_loss: 0.0170 - val_mae: 0.1305
Epoch 245/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0100 - mae: 0.08
35 - val_loss: 0.0171 - val_mae: 0.1309
Epoch 246/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0099 - mae: 0.08
29 - val loss: 0.0173 - val mae: 0.1314
Epoch 247/250
1/1 [===========] - 0s 30ms/step - loss: 0.0098 - mae: 0.08
23 - val loss: 0.0174 - val mae: 0.1318
Epoch 248/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0096 - mae: 0.08
18 - val loss: 0.0175 - val mae: 0.1322
Epoch 249/250
12 - val loss: 0.0176 - val mae: 0.1326
Epoch 250/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0094 - mae: 0.08
06 - val_loss: 0.0177 - val_mae: 0.1330
Epoch 1/250
1/1 [============= ] - 1s 1s/step - loss: 10.8213 - mae: 3.224
5 - val_loss: 16.9441 - val_mae: 4.1163
Epoch 2/250
1/1 [============== ] - 0s 38ms/step - loss: 9.8551 - mae: 3.05
```

```
45 - val_loss: 16.6904 - val_mae: 4.0854
Epoch 3/250
60 - val_loss: 16.3115 - val_mae: 4.0388
Epoch 4/250
1/1 [============= ] - 0s 33ms/step - loss: 7.9775 - mae: 2.68
78 - val_loss: 15.8521 - val_mae: 3.9815
Epoch 5/250
1/1 [============== ] - 0s 35ms/step - loss: 7.0656 - mae: 2.48
71 - val_loss: 15.3136 - val_mae: 3.9133
Epoch 6/250
34 - val_loss: 14.6710 - val_mae: 3.8303
Epoch 7/250
1/1 [============= ] - 0s 36ms/step - loss: 5.3384 - mae: 2.06
65 - val_loss: 13.8615 - val_mae: 3.7231
Epoch 8/250
1/1 [============= ] - 0s 36ms/step - loss: 4.5437 - mae: 1.86
08 - val_loss: 12.7930 - val_mae: 3.5767
Epoch 9/250
59 - val_loss: 11.3330 - val_mae: 3.3665
Epoch 10/250
1/1 [============== ] - 0s 31ms/step - loss: 3.1049 - mae: 1.46
00 - val_loss: 9.5607 - val_mae: 3.0920
Epoch 11/250
20 - val_loss: 7.6283 - val_mae: 2.7619
Epoch 12/250
1/1 [============= ] - 0s 31ms/step - loss: 1.9176 - mae: 1.11
24 - val_loss: 5.6922 - val_mae: 2.3858
Epoch 13/250
13 - val_loss: 3.8757 - val_mae: 1.9687
Epoch 14/250
1/1 [============= ] - 0s 30ms/step - loss: 1.0000 - mae: 0.80
55 - val_loss: 2.3460 - val_mae: 1.5317
Epoch 15/250
25 - val_loss: 1.2007 - val_mae: 1.0958
Epoch 16/250
1/1 [============= ] - 0s 30ms/step - loss: 0.4569 - mae: 0.55
11 - val_loss: 0.4576 - val_mae: 0.6765
Epoch 17/250
1/1 [============== ] - 0s 34ms/step - loss: 0.3398 - mae: 0.47
05 - val_loss: 0.0847 - val_mae: 0.2911
Epoch 18/250
1/1 [============= ] - 0s 60ms/step - loss: 0.3150 - mae: 0.46
95 - val_loss: 0.0017 - val_mae: 0.0414
Epoch 19/250
1/1 [============ ] - 0s 38ms/step - loss: 0.3619 - mae: 0.48
26 - val loss: 0.0926 - val mae: 0.3042
Epoch 20/250
1/1 [============= ] - 0s 40ms/step - loss: 0.4496 - mae: 0.54
66 - val loss: 0.2375 - val mae: 0.4874
Epoch 21/250
1/1 [============= ] - 0s 35ms/step - loss: 0.5408 - mae: 0.59
06 - val loss: 0.3487 - val mae: 0.5905
Epoch 22/250
05 - val loss: 0.3876 - val mae: 0.6226
Epoch 23/250
1/1 [============= ] - 0s 32ms/step - loss: 0.6190 - mae: 0.61
23 - val_loss: 0.3582 - val_mae: 0.5985
Epoch 24/250
1/1 [============= ] - 0s 30ms/step - loss: 0.5904 - mae: 0.59
35 - val loss: 0.2852 - val mae: 0.5341
Epoch 25/250
1/1 [============== ] - 0s 31ms/step - loss: 0.5288 - mae: 0.56
```

```
16 - val_loss: 0.1964 - val_mae: 0.4431
Epoch 26/250
05 - val_loss: 0.1137 - val_mae: 0.3372
Epoch 27/250
1/1 [============= ] - 0s 33ms/step - loss: 0.3633 - mae: 0.45
92 - val_loss: 0.0508 - val_mae: 0.2254
Epoch 28/250
1/1 [============== ] - 0s 33ms/step - loss: 0.2828 - mae: 0.41
21 - val_loss: 0.0132 - val_mae: 0.1148
Epoch 29/250
1/1 [============== ] - 0s 33ms/step - loss: 0.2143 - mae: 0.36
15 - val_loss: 1.1166e-04 - val_mae: 0.0106
Epoch 30/250
47 - val_loss: 0.0070 - val_mae: 0.0837
Epoch 31/250
1/1 [============ ] - 0s 43ms/step - loss: 0.1259 - mae: 0.28
10 - val_loss: 0.0275 - val_mae: 0.1659
Epoch 32/250
65 - val loss: 0.0553 - val mae: 0.2352
Epoch 33/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0963 - mae: 0.24
31 - val_loss: 0.0850 - val_mae: 0.2916
Epoch 34/250
1/1 [============] - 0s 39ms/step - loss: 0.0956 - mae: 0.24
32 - val_loss: 0.1131 - val_mae: 0.3362
Epoch 35/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0996 - mae: 0.24
67 - val_loss: 0.1372 - val_mae: 0.3704
Epoch 36/250
61 - val_loss: 0.1568 - val_mae: 0.3959
Epoch 37/250
1/1 [============== ] - 0s 38ms/step - loss: 0.1118 - mae: 0.27
02 - val_loss: 0.1718 - val_mae: 0.4145
Epoch 38/250
15 - val_loss: 0.1830 - val_mae: 0.4278
Epoch 39/250
1/1 [============== ] - 0s 34ms/step - loss: 0.1194 - mae: 0.28
69 - val_loss: 0.1912 - val_mae: 0.4373
Epoch 40/250
1/1 [============== ] - 0s 37ms/step - loss: 0.1195 - mae: 0.28
70 - val_loss: 0.1973 - val_mae: 0.4442
Epoch 41/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1167 - mae: 0.28
21 - val_loss: 0.2018 - val_mae: 0.4492
Epoch 42/250
1/1 [============= ] - 0s 35ms/step - loss: 0.1112 - mae: 0.27
30 - val loss: 0.2047 - val mae: 0.4525
Epoch 43/250
1/1 [============ ] - 0s 33ms/step - loss: 0.1036 - mae: 0.26
16 - val loss: 0.2060 - val mae: 0.4539
Epoch 44/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0945 - mae: 0.24
86 - val loss: 0.2051 - val mae: 0.4529
Epoch 45/250
50 - val loss: 0.2014 - val mae: 0.4487
Epoch 46/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0757 - mae: 0.22
22 - val loss: 0.1940 - val mae: 0.4405
Epoch 47/250
1/1 [============ ] - 0s 28ms/step - loss: 0.0675 - mae: 0.20
96 - val loss: 0.1827 - val mae: 0.4274
Epoch 48/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0607 - mae: 0.19
```

```
57 - val_loss: 0.1672 - val_mae: 0.4089
Epoch 49/250
15 - val_loss: 0.1482 - val_mae: 0.3849
Epoch 50/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0507 - mae: 0.17
07 - val_loss: 0.1265 - val_mae: 0.3556
Epoch 51/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0472 - mae: 0.16
13 - val_loss: 0.1036 - val_mae: 0.3219
Epoch 52/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0444 - mae: 0.15
82 - val_loss: 0.0811 - val_mae: 0.2848
Epoch 53/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0422 - mae: 0.15
81 - val_loss: 0.0605 - val_mae: 0.2459
Epoch 54/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0404 - mae: 0.15
71 - val_loss: 0.0428 - val_mae: 0.2069
Epoch 55/250
45 - val_loss: 0.0287 - val_mae: 0.1695
Epoch 56/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0377 - mae: 0.15
07 - val_loss: 0.0183 - val_mae: 0.1351
Epoch 57/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0366 - mae: 0.14
52 - val_loss: 0.0110 - val_mae: 0.1051
Epoch 58/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0356 - mae: 0.14
09 - val_loss: 0.0064 - val_mae: 0.0803
Epoch 59/250
96 - val_loss: 0.0037 - val_mae: 0.0612
Epoch 60/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0336 - mae: 0.13
79 - val_loss: 0.0023 - val_mae: 0.0479
Epoch 61/250
81 - val_loss: 0.0016 - val_mae: 0.0403
Epoch 62/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0318 - mae: 0.13
85 - val_loss: 0.0014 - val_mae: 0.0381
Epoch 63/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0309 - mae: 0.13
93 - val_loss: 0.0017 - val_mae: 0.0406
Epoch 64/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0298 - mae: 0.13
93 - val_loss: 0.0023 - val_mae: 0.0475
Epoch 65/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0286 - mae: 0.13
75 - val loss: 0.0034 - val mae: 0.0581
Epoch 66/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0272 - mae: 0.13
40 - val loss: 0.0052 - val mae: 0.0721
Epoch 67/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0257 - mae: 0.13
07 - val loss: 0.0079 - val mae: 0.0889
Epoch 68/250
73 - val loss: 0.0117 - val mae: 0.1081
Epoch 69/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0229 - mae: 0.12
43 - val loss: 0.0167 - val mae: 0.1290
Epoch 70/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0217 - mae: 0.12
25 - val loss: 0.0228 - val mae: 0.1512
Epoch 71/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0207 - mae: 0.12
```

```
09 - val_loss: 0.0302 - val_mae: 0.1737
Epoch 72/250
98 - val_loss: 0.0384 - val_mae: 0.1958
Epoch 73/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0192 - mae: 0.11
82 - val_loss: 0.0470 - val_mae: 0.2168
Epoch 74/250
64 - val_loss: 0.0555 - val_mae: 0.2357
Epoch 75/250
43 - val_loss: 0.0634 - val_mae: 0.2519
Epoch 76/250
22 - val_loss: 0.0701 - val_mae: 0.2647
Epoch 77/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0176 - mae: 0.11
02 - val_loss: 0.0751 - val_mae: 0.2740
Epoch 78/250
87 - val_loss: 0.0781 - val_mae: 0.2795
Epoch 79/250
77 - val_loss: 0.0793 - val_mae: 0.2815
Epoch 80/250
69 - val_loss: 0.0786 - val_mae: 0.2803
Epoch 81/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0162 - mae: 0.10
61 - val_loss: 0.0764 - val_mae: 0.2764
Epoch 82/250
53 - val_loss: 0.0731 - val_mae: 0.2704
Epoch 83/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0152 - mae: 0.10
46 - val_loss: 0.0692 - val_mae: 0.2631
Epoch 84/250
38 - val_loss: 0.0651 - val_mae: 0.2551
Epoch 85/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0143 - mae: 0.10
28 - val_loss: 0.0609 - val_mae: 0.2468
Epoch 86/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0138 - mae: 0.10
17 - val_loss: 0.0570 - val_mae: 0.2388
Epoch 87/250
06 - val_loss: 0.0535 - val_mae: 0.2313
Epoch 88/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0130 - mae: 0.09
94 - val loss: 0.0504 - val mae: 0.2244
Epoch 89/250
1/1 [===========] - 0s 36ms/step - loss: 0.0127 - mae: 0.09
82 - val loss: 0.0477 - val mae: 0.2184
Epoch 90/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0124 - mae: 0.09
72 - val loss: 0.0455 - val mae: 0.2133
Epoch 91/250
63 - val loss: 0.0437 - val mae: 0.2090
Epoch 92/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0118 - mae: 0.09
54 - val loss: 0.0423 - val mae: 0.2057
Epoch 93/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0116 - mae: 0.09
47 - val loss: 0.0414 - val mae: 0.2034
Epoch 94/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0113 - mae: 0.09
```

```
42 - val_loss: 0.0409 - val_mae: 0.2022
Epoch 95/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0111 - mae: 0.09
37 - val_loss: 0.0409 - val_mae: 0.2021
Epoch 96/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0109 - mae: 0.09
33 - val_loss: 0.0412 - val_mae: 0.2031
Epoch 97/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0107 - mae: 0.09
27 - val_loss: 0.0421 - val_mae: 0.2051
Epoch 98/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0104 - mae: 0.09
20 - val_loss: 0.0432 - val_mae: 0.2080
Epoch 99/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0102 - mae: 0.09
11 - val_loss: 0.0448 - val_mae: 0.2115
Epoch 100/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0100 - mae: 0.09
02 - val_loss: 0.0465 - val_mae: 0.2156
Epoch 101/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0097 - mae: 0.08
91 - val_loss: 0.0484 - val_mae: 0.2200
Epoch 102/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0095 - mae: 0.08
80 - val_loss: 0.0503 - val_mae: 0.2243
Epoch 103/250
69 - val_loss: 0.0523 - val_mae: 0.2286
Epoch 104/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0091 - mae: 0.08
58 - val_loss: 0.0541 - val_mae: 0.2326
Epoch 105/250
47 - val_loss: 0.0558 - val_mae: 0.2363
Epoch 106/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0087 - mae: 0.08
38 - val_loss: 0.0575 - val_mae: 0.2397
Epoch 107/250
29 - val_loss: 0.0590 - val_mae: 0.2429
Epoch 108/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0083 - mae: 0.08
21 - val_loss: 0.0604 - val_mae: 0.2458
Epoch 109/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0082 - mae: 0.08
12 - val_loss: 0.0618 - val_mae: 0.2485
Epoch 110/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0080 - mae: 0.08
04 - val_loss: 0.0630 - val_mae: 0.2511
Epoch 111/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0079 - mae: 0.07
96 - val loss: 0.0642 - val mae: 0.2535
Epoch 112/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0077 - mae: 0.07
87 - val loss: 0.0653 - val mae: 0.2556
Epoch 113/250
79 - val loss: 0.0662 - val mae: 0.2574
Epoch 114/250
70 - val loss: 0.0670 - val mae: 0.2588
Epoch 115/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0072 - mae: 0.07
62 - val_loss: 0.0675 - val_mae: 0.2598
Epoch 116/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0071 - mae: 0.07
55 - val loss: 0.0678 - val mae: 0.2605
Epoch 117/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0070 - mae: 0.07
```

```
47 - val_loss: 0.0680 - val_mae: 0.2607
Epoch 118/250
41 - val_loss: 0.0680 - val_mae: 0.2607
Epoch 119/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0067 - mae: 0.07
34 - val_loss: 0.0678 - val_mae: 0.2605
Epoch 120/250
27 - val_loss: 0.0677 - val_mae: 0.2601
Epoch 121/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0064 - mae: 0.07
20 - val_loss: 0.0675 - val_mae: 0.2598
Epoch 122/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0063 - mae: 0.07
12 - val_loss: 0.0674 - val_mae: 0.2595
Epoch 123/250
1/1 [============] - 0s 33ms/step - loss: 0.0062 - mae: 0.07
04 - val_loss: 0.0673 - val_mae: 0.2594
Epoch 124/250
96 - val_loss: 0.0673 - val_mae: 0.2595
Epoch 125/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0059 - mae: 0.06
87 - val_loss: 0.0675 - val_mae: 0.2598
Epoch 126/250
78 - val_loss: 0.0678 - val_mae: 0.2603
Epoch 127/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0057 - mae: 0.06
70 - val_loss: 0.0682 - val_mae: 0.2611
Epoch 128/250
62 - val_loss: 0.0687 - val_mae: 0.2621
Epoch 129/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0055 - mae: 0.06
55 - val_loss: 0.0694 - val_mae: 0.2634
Epoch 130/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0054 - mae: 0.06
47 - val_loss: 0.0702 - val_mae: 0.2649
Epoch 131/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0053 - mae: 0.06
40 - val_loss: 0.0712 - val_mae: 0.2668
Epoch 132/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0052 - mae: 0.06
33 - val_loss: 0.0723 - val_mae: 0.2689
Epoch 133/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0051 - mae: 0.06
26 - val_loss: 0.0735 - val_mae: 0.2712
Epoch 134/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0050 - mae: 0.06
20 - val loss: 0.0749 - val mae: 0.2736
Epoch 135/250
1/1 [===========] - 0s 33ms/step - loss: 0.0049 - mae: 0.06
13 - val loss: 0.0763 - val mae: 0.2761
Epoch 136/250
06 - val loss: 0.0777 - val mae: 0.2787
Epoch 137/250
99 - val loss: 0.0790 - val mae: 0.2811
Epoch 138/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0046 - mae: 0.05
93 - val_loss: 0.0803 - val_mae: 0.2834
Epoch 139/250
1/1 [============ ] - 0s 53ms/step - loss: 0.0045 - mae: 0.05
87 - val loss: 0.0815 - val mae: 0.2855
Epoch 140/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0044 - mae: 0.05
```

```
81 - val_loss: 0.0826 - val_mae: 0.2874
Epoch 141/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0043 - mae: 0.05
75 - val_loss: 0.0835 - val_mae: 0.2890
Epoch 142/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0042 - mae: 0.05
69 - val_loss: 0.0844 - val_mae: 0.2905
Epoch 143/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0042 - mae: 0.05
63 - val_loss: 0.0852 - val_mae: 0.2918
Epoch 144/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0041 - mae: 0.05
57 - val_loss: 0.0858 - val_mae: 0.2930
Epoch 145/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0040 - mae: 0.05
51 - val_loss: 0.0865 - val_mae: 0.2941
Epoch 146/250
45 - val_loss: 0.0871 - val_mae: 0.2951
Epoch 147/250
39 - val_loss: 0.0876 - val_mae: 0.2960
Epoch 148/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0038 - mae: 0.05
33 - val_loss: 0.0882 - val_mae: 0.2970
Epoch 149/250
27 - val_loss: 0.0887 - val_mae: 0.2979
Epoch 150/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0036 - mae: 0.05
21 - val_loss: 0.0893 - val_mae: 0.2988
Epoch 151/250
15 - val_loss: 0.0899 - val_mae: 0.2998
Epoch 152/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0035 - mae: 0.05
10 - val_loss: 0.0905 - val_mae: 0.3008
Epoch 153/250
04 - val_loss: 0.0912 - val_mae: 0.3020
Epoch 154/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0034 - mae: 0.04
99 - val_loss: 0.0919 - val_mae: 0.3032
Epoch 155/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0033 - mae: 0.04
93 - val_loss: 0.0927 - val_mae: 0.3045
Epoch 156/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0032 - mae: 0.04
88 - val_loss: 0.0936 - val_mae: 0.3059
Epoch 157/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0032 - mae: 0.04
83 - val loss: 0.0944 - val mae: 0.3073
Epoch 158/250
1/1 [===========] - 0s 29ms/step - loss: 0.0031 - mae: 0.04
78 - val loss: 0.0953 - val mae: 0.3088
Epoch 159/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0031 - mae: 0.04
72 - val loss: 0.0963 - val mae: 0.3102
Epoch 160/250
67 - val loss: 0.0972 - val mae: 0.3117
Epoch 161/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0029 - mae: 0.04
62 - val_loss: 0.0981 - val_mae: 0.3132
Epoch 162/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0029 - mae: 0.04
57 - val loss: 0.0990 - val mae: 0.3146
Epoch 163/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0028 - mae: 0.04
```

```
52 - val_loss: 0.0998 - val_mae: 0.3160
Epoch 164/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0028 - mae: 0.04
47 - val_loss: 0.1007 - val_mae: 0.3173
Epoch 165/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0027 - mae: 0.04
42 - val_loss: 0.1016 - val_mae: 0.3187
Epoch 166/250
37 - val_loss: 0.1024 - val_mae: 0.3200
Epoch 167/250
32 - val_loss: 0.1032 - val_mae: 0.3213
Epoch 168/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0026 - mae: 0.04
27 - val_loss: 0.1040 - val_mae: 0.3226
Epoch 169/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0025 - mae: 0.04
23 - val_loss: 0.1049 - val_mae: 0.3238
Epoch 170/250
18 - val_loss: 0.1056 - val_mae: 0.3250
Epoch 171/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0024 - mae: 0.04
14 - val_loss: 0.1064 - val_mae: 0.3262
Epoch 172/250
10 - val_loss: 0.1072 - val_mae: 0.3274
Epoch 173/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0024 - mae: 0.04
05 - val_loss: 0.1079 - val_mae: 0.3285
Epoch 174/250
01 - val_loss: 0.1086 - val_mae: 0.3296
Epoch 175/250
1/1 [============== ] - 0s 56ms/step - loss: 0.0023 - mae: 0.03
97 - val_loss: 0.1094 - val_mae: 0.3307
Epoch 176/250
93 - val_loss: 0.1101 - val_mae: 0.3318
Epoch 177/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0022 - mae: 0.03
89 - val_loss: 0.1108 - val_mae: 0.3328
Epoch 178/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0022 - mae: 0.03
85 - val_loss: 0.1115 - val_mae: 0.3339
Epoch 179/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0021 - mae: 0.03
81 - val_loss: 0.1122 - val_mae: 0.3349
Epoch 180/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0021 - mae: 0.03
77 - val loss: 0.1128 - val mae: 0.3359
Epoch 181/250
1/1 [===========] - 0s 29ms/step - loss: 0.0020 - mae: 0.03
73 - val loss: 0.1135 - val mae: 0.3369
Epoch 182/250
70 - val loss: 0.1142 - val mae: 0.3379
Epoch 183/250
66 - val loss: 0.1148 - val mae: 0.3389
Epoch 184/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0019 - mae: 0.03
63 - val_loss: 0.1155 - val_mae: 0.3399
Epoch 185/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0019 - mae: 0.03
60 - val loss: 0.1162 - val mae: 0.3409
Epoch 186/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0019 - mae: 0.03
```

```
56 - val_loss: 0.1169 - val_mae: 0.3419
Epoch 187/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0018 - mae: 0.03
53 - val_loss: 0.1176 - val_mae: 0.3429
Epoch 188/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0018 - mae: 0.03
50 - val_loss: 0.1183 - val_mae: 0.3439
Epoch 189/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0018 - mae: 0.03
46 - val_loss: 0.1189 - val_mae: 0.3449
Epoch 190/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0018 - mae: 0.03
43 - val_loss: 0.1196 - val_mae: 0.3459
Epoch 191/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0017 - mae: 0.03
40 - val_loss: 0.1203 - val_mae: 0.3469
Epoch 192/250
1/1 [=========== ] - 0s 34ms/step - loss: 0.0017 - mae: 0.03
36 - val_loss: 0.1210 - val_mae: 0.3479
Epoch 193/250
33 - val_loss: 0.1217 - val_mae: 0.3489
Epoch 194/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0016 - mae: 0.03
30 - val_loss: 0.1224 - val_mae: 0.3498
Epoch 195/250
27 - val_loss: 0.1230 - val_mae: 0.3508
Epoch 196/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0016 - mae: 0.03
24 - val_loss: 0.1237 - val_mae: 0.3517
Epoch 197/250
20 - val_loss: 0.1243 - val_mae: 0.3526
Epoch 198/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0015 - mae: 0.03
17 - val_loss: 0.1249 - val_mae: 0.3535
Epoch 199/250
14 - val_loss: 0.1256 - val_mae: 0.3543
Epoch 200/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0015 - mae: 0.03
11 - val_loss: 0.1262 - val_mae: 0.3552
Epoch 201/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0015 - mae: 0.03
08 - val_loss: 0.1267 - val_mae: 0.3560
Epoch 202/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0014 - mae: 0.03
05 - val_loss: 0.1273 - val_mae: 0.3568
Epoch 203/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0014 - mae: 0.03
03 - val loss: 0.1279 - val mae: 0.3576
Epoch 204/250
1/1 [===========] - 0s 30ms/step - loss: 0.0014 - mae: 0.03
00 - val loss: 0.1284 - val mae: 0.3584
Epoch 205/250
97 - val loss: 0.1290 - val mae: 0.3591
Epoch 206/250
94 - val loss: 0.1295 - val mae: 0.3599
Epoch 207/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0013 - mae: 0.02
91 - val_loss: 0.1301 - val_mae: 0.3607
Epoch 208/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0013 - mae: 0.02
88 - val loss: 0.1306 - val mae: 0.3614
Epoch 209/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0013 - mae: 0.02
```

```
86 - val_loss: 0.1312 - val_mae: 0.3622
Epoch 210/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0013 - mae: 0.02
83 - val_loss: 0.1317 - val_mae: 0.3629
Epoch 211/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0013 - mae: 0.02
81 - val_loss: 0.1323 - val_mae: 0.3637
Epoch 212/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0012 - mae: 0.02
78 - val_loss: 0.1328 - val_mae: 0.3644
Epoch 213/250
1/1 [============ ] - 0s 46ms/step - loss: 0.0012 - mae: 0.02
75 - val_loss: 0.1333 - val_mae: 0.3652
Epoch 214/250
73 - val_loss: 0.1339 - val_mae: 0.3659
Epoch 215/250
1/1 [============ ] - 0s 50ms/step - loss: 0.0012 - mae: 0.02
70 - val_loss: 0.1344 - val_mae: 0.3666
Epoch 216/250
68 - val_loss: 0.1349 - val_mae: 0.3673
Epoch 217/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0011 - mae: 0.02
66 - val_loss: 0.1354 - val_mae: 0.3680
Epoch 218/250
63 - val_loss: 0.1359 - val_mae: 0.3687
Epoch 219/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0011 - mae: 0.02
61 - val_loss: 0.1364 - val_mae: 0.3694
Epoch 220/250
58 - val_loss: 0.1369 - val_mae: 0.3700
Epoch 221/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0011 - mae: 0.02
56 - val_loss: 0.1374 - val_mae: 0.3707
Epoch 222/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0011 - mae: 0.02
54 - val_loss: 0.1379 - val_mae: 0.3713
Epoch 223/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0010 - mae: 0.02
51 - val_loss: 0.1383 - val_mae: 0.3719
Epoch 224/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0010 - mae: 0.02
49 - val_loss: 0.1388 - val_mae: 0.3726
Epoch 225/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0010 - mae: 0.02
47 - val_loss: 0.1393 - val_mae: 0.3732
Epoch 226/250
0.0245 - val loss: 0.1397 - val mae: 0.3738
Epoch 227/250
1/1 [=========== ] - 0s 37ms/step - loss: 9.7639e-04 - mae:
0.0242 - val loss: 0.1402 - val mae: 0.3744
Epoch 228/250
1/1 [=========== ] - 0s 34ms/step - loss: 9.6145e-04 - mae:
0.0240 - val loss: 0.1406 - val mae: 0.3750
Epoch 229/250
1/1 [=========== ] - 0s 38ms/step - loss: 9.4674e-04 - mae:
0.0238 - val loss: 0.1410 - val mae: 0.3755
Epoch 230/250
1/1 [============] - 0s 41ms/step - loss: 9.3225e-04 - mae:
0.0236 - val_loss: 0.1415 - val_mae: 0.3761
Epoch 231/250
1/1 [===========] - 0s 38ms/step - loss: 9.1798e-04 - mae:
0.0234 - val_loss: 0.1419 - val_mae: 0.3767
Epoch 232/250
1/1 [============== ] - 0s 37ms/step - loss: 9.0391e-04 - mae:
```

```
0.0232 - val_loss: 0.1423 - val_mae: 0.3772
Epoch 233/250
0.0230 - val_loss: 0.1427 - val_mae: 0.3778
Epoch 234/250
1/1 [===========] - 0s 41ms/step - loss: 8.7639e-04 - mae:
0.0228 - val_loss: 0.1431 - val_mae: 0.3783
Epoch 235/250
1/1 [===========] - 0s 39ms/step - loss: 8.6293e-04 - mae:
0.0226 - val_loss: 0.1435 - val_mae: 0.3788
Epoch 236/250
1/1 [============== ] - 0s 39ms/step - loss: 8.4965e-04 - mae:
0.0224 - val_loss: 0.1439 - val_mae: 0.3793
Epoch 237/250
1/1 [============== ] - 0s 34ms/step - loss: 8.3656e-04 - mae:
0.0222 - val_loss: 0.1443 - val_mae: 0.3799
Epoch 238/250
1/1 [============ ] - 0s 36ms/step - loss: 8.2365e-04 - mae:
0.0220 - val_loss: 0.1447 - val_mae: 0.3804
Epoch 239/250
1/1 [============== ] - 0s 33ms/step - loss: 8.1093e-04 - mae:
0.0218 - val_loss: 0.1451 - val_mae: 0.3809
Epoch 240/250
0.0216 - val_loss: 0.1454 - val_mae: 0.3814
Epoch 241/250
1/1 [============== ] - 0s 40ms/step - loss: 7.8600e-04 - mae:
0.0214 - val_loss: 0.1458 - val_mae: 0.3819
Epoch 242/250
1/1 [==============] - 0s 40ms/step - loss: 7.7378e-04 - mae:
0.0212 - val_loss: 0.1462 - val_mae: 0.3824
Epoch 243/250
1/1 [============== ] - 0s 33ms/step - loss: 7.6173e-04 - mae:
0.0210 - val_loss: 0.1466 - val_mae: 0.3828
Epoch 244/250
1/1 [============== ] - 0s 30ms/step - loss: 7.4984e-04 - mae:
0.0208 - val_loss: 0.1469 - val_mae: 0.3833
Epoch 245/250
1/1 [=========== ] - 0s 31ms/step - loss: 7.3811e-04 - mae:
0.0207 - val_loss: 0.1473 - val_mae: 0.3838
Epoch 246/250
1/1 [===========] - 0s 31ms/step - loss: 7.2654e-04 - mae:
0.0205 - val_loss: 0.1476 - val_mae: 0.3842
Epoch 247/250
1/1 [============== ] - 0s 32ms/step - loss: 7.1512e-04 - mae:
0.0203 - val_loss: 0.1480 - val_mae: 0.3847
Epoch 248/250
1/1 [===========] - 0s 34ms/step - loss: 7.0385e-04 - mae:
0.0201 - val_loss: 0.1483 - val_mae: 0.3851
Epoch 249/250
1/1 [============== ] - 0s 31ms/step - loss: 6.9272e-04 - mae:
0.0199 - val loss: 0.1486 - val mae: 0.3855
Epoch 250/250
1/1 [============ ] - 0s 31ms/step - loss: 6.8174e-04 - mae:
0.0197 - val loss: 0.1490 - val mae: 0.3860
Epoch 1/250
5402 - val loss: 14.1691 - val mae: 3.7642
Epoch 2/250
1/1 [============= ] - 0s 35ms/step - loss: 12.1143 - mae: 3.4
615 - val loss: 14.0452 - val mae: 3.7477
Epoch 3/250
1/1 [============= ] - 0s 32ms/step - loss: 11.6108 - mae: 3.3
881 - val_loss: 13.9463 - val_mae: 3.7345
Epoch 4/250
1/1 [============== ] - 0s 35ms/step - loss: 11.1348 - mae: 3.3
161 - val_loss: 13.8853 - val_mae: 3.7263
Epoch 5/250
1/1 [=============== ] - 0s 41ms/step - loss: 10.6563 - mae: 3.2
```

```
412 - val_loss: 13.8500 - val_mae: 3.7216
Epoch 6/250
595 - val_loss: 13.8297 - val_mae: 3.7188
Epoch 7/250
1/1 [============ ] - 0s 34ms/step - loss: 9.6140 - mae: 3.06
83 - val_loss: 13.8194 - val_mae: 3.7174
Epoch 8/250
1/1 [============= ] - 0s 34ms/step - loss: 9.0423 - mae: 2.96
66 - val_loss: 13.8142 - val_mae: 3.7167
Epoch 9/250
31 - val_loss: 13.8099 - val_mae: 3.7162
Epoch 10/250
1/1 [============= ] - 0s 34ms/step - loss: 7.8083 - mae: 2.72
61 - val_loss: 13.8037 - val_mae: 3.7153
Epoch 11/250
1/1 [============ ] - 0s 32ms/step - loss: 7.1560 - mae: 2.58
45 - val_loss: 13.7938 - val_mae: 3.7140
Epoch 12/250
70 - val_loss: 13.7793 - val_mae: 3.7120
Epoch 13/250
23 - val_loss: 13.7597 - val_mae: 3.7094
Epoch 14/250
00 - val_loss: 13.7348 - val_mae: 3.7061
Epoch 15/250
1/1 [============== ] - 0s 37ms/step - loss: 4.5911 - mae: 1.84
97 - val_loss: 13.7036 - val_mae: 3.7018
Epoch 16/250
31 - val_loss: 13.6632 - val_mae: 3.6964
Epoch 17/250
1/1 [============= ] - 0s 31ms/step - loss: 3.6206 - mae: 1.53
51 - val_loss: 13.6086 - val_mae: 3.6890
Epoch 18/250
1/1 [============== ] - 0s 38ms/step - loss: 3.2923 - mae: 1.43
87 - val_loss: 13.5320 - val_mae: 3.6786
Epoch 19/250
1/1 [============== ] - 0s 63ms/step - loss: 3.0789 - mae: 1.37
52 - val_loss: 13.4221 - val_mae: 3.6636
Epoch 20/250
1/1 [============== ] - 0s 46ms/step - loss: 2.9552 - mae: 1.33
98 - val_loss: 13.2641 - val_mae: 3.6420
Epoch 21/250
64 - val_loss: 13.0389 - val_mae: 3.6109
Epoch 22/250
1/1 [============= ] - 0s 38ms/step - loss: 2.7697 - mae: 1.27
85 - val loss: 12.7182 - val mae: 3.5663
Epoch 23/250
1/1 [============= ] - 0s 35ms/step - loss: 2.6098 - mae: 1.22
33 - val loss: 12.2648 - val mae: 3.5021
Epoch 24/250
1/1 [============= ] - 0s 48ms/step - loss: 2.3684 - mae: 1.15
04 - val loss: 11.6144 - val mae: 3.4080
Epoch 25/250
55 - val loss: 10.6902 - val mae: 3.2696
Epoch 26/250
1/1 [============ ] - 0s 38ms/step - loss: 1.7493 - mae: 0.98
04 - val loss: 9.4090 - val mae: 3.0674
Epoch 27/250
1/1 [=========== ] - 0s 34ms/step - loss: 1.4630 - mae: 0.89
69 - val loss: 7.9154 - val mae: 2.8134
Epoch 28/250
1/1 [============== ] - 0s 30ms/step - loss: 1.2176 - mae: 0.80
```

```
69 - val_loss: 6.4589 - val_mae: 2.5414
Epoch 29/250
03 - val_loss: 5.0228 - val_mae: 2.2412
Epoch 30/250
1/1 [============ ] - 0s 39ms/step - loss: 0.7775 - mae: 0.60
54 - val_loss: 3.8032 - val_mae: 1.9502
Epoch 31/250
72 - val_loss: 2.8247 - val_mae: 1.6807
Epoch 32/250
75 - val_loss: 2.0577 - val_mae: 1.4345
Epoch 33/250
1/1 [============= ] - 0s 33ms/step - loss: 0.3007 - mae: 0.38
34 - val_loss: 1.4611 - val_mae: 1.2087
Epoch 34/250
75 - val_loss: 1.0007 - val_mae: 1.0003
Epoch 35/250
1/1 [============= ] - 0s 34ms/step - loss: 0.2026 - mae: 0.36
22 - val_loss: 0.6510 - val_mae: 0.8068
Epoch 36/250
1/1 [============== ] - 0s 34ms/step - loss: 0.1871 - mae: 0.35
56 - val_loss: 0.3944 - val_mae: 0.6280
Epoch 37/250
1/1 [============ ] - 0s 33ms/step - loss: 0.1831 - mae: 0.35
02 - val_loss: 0.2153 - val_mae: 0.4641
Epoch 38/250
1/1 [============== ] - 0s 46ms/step - loss: 0.1856 - mae: 0.35
51 - val_loss: 0.0998 - val_mae: 0.3159
Epoch 39/250
21 - val_loss: 0.0342 - val_mae: 0.1850
Epoch 40/250
1/1 [============== ] - 0s 38ms/step - loss: 0.1979 - mae: 0.36
28 - val_loss: 0.0053 - val_mae: 0.0731
Epoch 41/250
1/1 [============== ] - 0s 30ms/step - loss: 0.2035 - mae: 0.37
71 - val_loss: 3.2617e-04 - val_mae: 0.0181
Epoch 42/250
1/1 [============== ] - 0s 31ms/step - loss: 0.2064 - mae: 0.38
48 - val_loss: 0.0076 - val_mae: 0.0871
Epoch 43/250
1/1 [============== ] - 0s 30ms/step - loss: 0.2054 - mae: 0.38
57 - val_loss: 0.0178 - val_mae: 0.1335
Epoch 44/250
1/1 [============ ] - 0s 30ms/step - loss: 0.2000 - mae: 0.38
20 - val_loss: 0.0250 - val_mae: 0.1580
Epoch 45/250
1/1 [============= ] - 0s 33ms/step - loss: 0.1903 - mae: 0.37
30 - val loss: 0.0263 - val mae: 0.1622
Epoch 46/250
1/1 [============ ] - 0s 43ms/step - loss: 0.1774 - mae: 0.35
97 - val loss: 0.0221 - val mae: 0.1486
Epoch 47/250
1/1 [============= ] - 0s 41ms/step - loss: 0.1627 - mae: 0.34
55 - val loss: 0.0145 - val mae: 0.1205
Epoch 48/250
01 - val loss: 0.0066 - val mae: 0.0812
Epoch 49/250
1/1 [============= ] - 0s 29ms/step - loss: 0.1343 - mae: 0.31
67 - val_loss: 0.0012 - val_mae: 0.0344
Epoch 50/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1230 - mae: 0.30
86 - val_loss: 2.7017e-04 - val_mae: 0.0164
Epoch 51/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1142 - mae: 0.30
```

```
09 - val_loss: 0.0047 - val_mae: 0.0682
Epoch 52/250
22 - val_loss: 0.0140 - val_mae: 0.1185
Epoch 53/250
1/1 [============ ] - 0s 38ms/step - loss: 0.1022 - mae: 0.28
51 - val_loss: 0.0273 - val_mae: 0.1652
Epoch 54/250
80 - val_loss: 0.0429 - val_mae: 0.2072
Epoch 55/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0929 - mae: 0.26
98 - val_loss: 0.0595 - val_mae: 0.2440
Epoch 56/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0881 - mae: 0.26
06 - val_loss: 0.0760 - val_mae: 0.2757
Epoch 57/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0832 - mae: 0.25
18 - val_loss: 0.0918 - val_mae: 0.3029
Epoch 58/250
32 - val_loss: 0.1068 - val_mae: 0.3267
Epoch 59/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0749 - mae: 0.23
39 - val_loss: 0.1212 - val_mae: 0.3482
Epoch 60/250
44 - val_loss: 0.1357 - val_mae: 0.3684
Epoch 61/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0707 - mae: 0.22
05 - val_loss: 0.1507 - val_mae: 0.3882
Epoch 62/250
02 - val_loss: 0.1668 - val_mae: 0.4084
Epoch 63/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0701 - mae: 0.22
04 - val_loss: 0.1842 - val_mae: 0.4292
Epoch 64/250
05 - val_loss: 0.2032 - val_mae: 0.4508
Epoch 65/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0698 - mae: 0.21
97 - val_loss: 0.2235 - val_mae: 0.4728
Epoch 66/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0691 - mae: 0.21
81 - val_loss: 0.2446 - val_mae: 0.4946
Epoch 67/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0681 - mae: 0.21
57 - val_loss: 0.2656 - val_mae: 0.5154
Epoch 68/250
1/1 [============] - 0s 48ms/step - loss: 0.0668 - mae: 0.21
41 - val loss: 0.2856 - val mae: 0.5344
Epoch 69/250
1/1 [===========] - 0s 37ms/step - loss: 0.0657 - mae: 0.21
24 - val loss: 0.3032 - val mae: 0.5506
Epoch 70/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0648 - mae: 0.21
06 - val loss: 0.3172 - val mae: 0.5632
Epoch 71/250
87 - val loss: 0.3265 - val mae: 0.5714
Epoch 72/250
1/1 [============= ] - 0s 51ms/step - loss: 0.0636 - mae: 0.20
76 - val_loss: 0.3304 - val_mae: 0.5748
Epoch 73/250
1/1 [============ ] - 0s 49ms/step - loss: 0.0632 - mae: 0.20
64 - val loss: 0.3288 - val mae: 0.5734
Epoch 74/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0626 - mae: 0.20
```

```
52 - val_loss: 0.3219 - val_mae: 0.5674
Epoch 75/250
1/1 [============= ] - 0s 75ms/step - loss: 0.0619 - mae: 0.20
39 - val_loss: 0.3105 - val_mae: 0.5572
Epoch 76/250
26 - val_loss: 0.2958 - val_mae: 0.5438
Epoch 77/250
12 - val_loss: 0.2790 - val_mae: 0.5282
Epoch 78/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0591 - mae: 0.19
98 - val_loss: 0.2615 - val_mae: 0.5114
Epoch 79/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0584 - mae: 0.19
84 - val_loss: 0.2445 - val_mae: 0.4944
Epoch 80/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0577 - mae: 0.19
73 - val_loss: 0.2288 - val_mae: 0.4784
Epoch 81/250
71 - val_loss: 0.2151 - val_mae: 0.4638
Epoch 82/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0568 - mae: 0.19
69 - val_loss: 0.2037 - val_mae: 0.4514
Epoch 83/250
64 - val_loss: 0.1946 - val_mae: 0.4412
Epoch 84/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0556 - mae: 0.19
54 - val_loss: 0.1877 - val_mae: 0.4333
Epoch 85/250
41 - val_loss: 0.1827 - val_mae: 0.4274
Epoch 86/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0542 - mae: 0.19
24 - val_loss: 0.1791 - val_mae: 0.4232
Epoch 87/250
04 - val_loss: 0.1765 - val_mae: 0.4201
Epoch 88/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0527 - mae: 0.18
88 - val_loss: 0.1743 - val_mae: 0.4175
Epoch 89/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0520 - mae: 0.18
71 - val_loss: 0.1723 - val_mae: 0.4151
Epoch 90/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0514 - mae: 0.18
54 - val_loss: 0.1701 - val_mae: 0.4124
Epoch 91/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0508 - mae: 0.18
38 - val loss: 0.1673 - val mae: 0.4091
Epoch 92/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0501 - mae: 0.18
22 - val loss: 0.1640 - val mae: 0.4050
Epoch 93/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0495 - mae: 0.18
10 - val loss: 0.1602 - val mae: 0.4003
Epoch 94/250
97 - val loss: 0.1560 - val mae: 0.3949
Epoch 95/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0482 - mae: 0.17
83 - val_loss: 0.1515 - val_mae: 0.3892
Epoch 96/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0476 - mae: 0.17
69 - val loss: 0.1470 - val mae: 0.3834
Epoch 97/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0470 - mae: 0.17
```

```
55 - val_loss: 0.1427 - val_mae: 0.3777
Epoch 98/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0464 - mae: 0.17
43 - val_loss: 0.1387 - val_mae: 0.3724
Epoch 99/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0458 - mae: 0.17
31 - val_loss: 0.1352 - val_mae: 0.3677
Epoch 100/250
20 - val_loss: 0.1323 - val_mae: 0.3637
Epoch 101/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0448 - mae: 0.17
07 - val_loss: 0.1299 - val_mae: 0.3604
Epoch 102/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0442 - mae: 0.16
93 - val_loss: 0.1279 - val_mae: 0.3577
Epoch 103/250
1/1 [=========== ] - 0s 34ms/step - loss: 0.0436 - mae: 0.16
78 - val_loss: 0.1263 - val_mae: 0.3554
Epoch 104/250
64 - val_loss: 0.1250 - val_mae: 0.3536
Epoch 105/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0424 - mae: 0.16
51 - val_loss: 0.1238 - val_mae: 0.3518
Epoch 106/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0418 - mae: 0.16
37 - val_loss: 0.1225 - val_mae: 0.3500
Epoch 107/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0412 - mae: 0.16
23 - val_loss: 0.1211 - val_mae: 0.3480
Epoch 108/250
10 - val_loss: 0.1195 - val_mae: 0.3458
Epoch 109/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0400 - mae: 0.15
96 - val_loss: 0.1177 - val_mae: 0.3431
Epoch 110/250
83 - val_loss: 0.1157 - val_mae: 0.3401
Epoch 111/250
1/1 [============== ] - 0s 66ms/step - loss: 0.0388 - mae: 0.15
69 - val_loss: 0.1135 - val_mae: 0.3369
Epoch 112/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0381 - mae: 0.15
56 - val_loss: 0.1112 - val_mae: 0.3335
Epoch 113/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0375 - mae: 0.15
45 - val_loss: 0.1090 - val_mae: 0.3301
Epoch 114/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0369 - mae: 0.15
34 - val loss: 0.1069 - val mae: 0.3269
Epoch 115/250
1/1 [===========] - 0s 36ms/step - loss: 0.0363 - mae: 0.15
22 - val loss: 0.1050 - val mae: 0.3241
Epoch 116/250
11 - val loss: 0.1035 - val mae: 0.3216
Epoch 117/250
99 - val loss: 0.1022 - val mae: 0.3197
Epoch 118/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0345 - mae: 0.14
86 - val_loss: 0.1013 - val_mae: 0.3183
Epoch 119/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0339 - mae: 0.14
74 - val loss: 0.1008 - val mae: 0.3174
Epoch 120/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0333 - mae: 0.14
```

```
62 - val_loss: 0.1004 - val_mae: 0.3169
Epoch 121/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0327 - mae: 0.14
49 - val_loss: 0.1003 - val_mae: 0.3166
Epoch 122/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0321 - mae: 0.14
37 - val_loss: 0.1002 - val_mae: 0.3165
Epoch 123/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0315 - mae: 0.14
24 - val_loss: 0.1000 - val_mae: 0.3163
Epoch 124/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0309 - mae: 0.14
11 - val_loss: 0.0998 - val_mae: 0.3159
Epoch 125/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0304 - mae: 0.13
98 - val_loss: 0.0993 - val_mae: 0.3152
Epoch 126/250
1/1 [===========] - 0s 34ms/step - loss: 0.0298 - mae: 0.13
85 - val_loss: 0.0987 - val_mae: 0.3141
Epoch 127/250
72 - val_loss: 0.0977 - val_mae: 0.3126
Epoch 128/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0288 - mae: 0.13
58 - val_loss: 0.0965 - val_mae: 0.3106
Epoch 129/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0282 - mae: 0.13
45 - val_loss: 0.0950 - val_mae: 0.3082
Epoch 130/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0277 - mae: 0.13
32 - val_loss: 0.0933 - val_mae: 0.3055
Epoch 131/250
18 - val_loss: 0.0915 - val_mae: 0.3025
Epoch 132/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0267 - mae: 0.13
05 - val_loss: 0.0896 - val_mae: 0.2994
Epoch 133/250
91 - val_loss: 0.0877 - val_mae: 0.2961
Epoch 134/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0257 - mae: 0.12
78 - val_loss: 0.0858 - val_mae: 0.2929
Epoch 135/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0253 - mae: 0.12
66 - val_loss: 0.0839 - val_mae: 0.2897
Epoch 136/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0248 - mae: 0.12
56 - val_loss: 0.0821 - val_mae: 0.2865
Epoch 137/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0244 - mae: 0.12
47 - val loss: 0.0803 - val mae: 0.2834
Epoch 138/250
1/1 [===========] - 0s 35ms/step - loss: 0.0239 - mae: 0.12
38 - val loss: 0.0786 - val mae: 0.2804
Epoch 139/250
29 - val loss: 0.0770 - val mae: 0.2774
Epoch 140/250
19 - val loss: 0.0754 - val mae: 0.2745
Epoch 141/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0227 - mae: 0.12
10 - val_loss: 0.0738 - val_mae: 0.2716
Epoch 142/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0223 - mae: 0.12
00 - val loss: 0.0722 - val mae: 0.2687
Epoch 143/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0219 - mae: 0.11
```

```
90 - val_loss: 0.0707 - val_mae: 0.2658
Epoch 144/250
80 - val_loss: 0.0692 - val_mae: 0.2630
Epoch 145/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0211 - mae: 0.11
69 - val_loss: 0.0677 - val_mae: 0.2602
Epoch 146/250
59 - val_loss: 0.0663 - val_mae: 0.2575
Epoch 147/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0204 - mae: 0.11
48 - val_loss: 0.0650 - val_mae: 0.2550
Epoch 148/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0201 - mae: 0.11
37 - val_loss: 0.0639 - val_mae: 0.2527
Epoch 149/250
1/1 [===========] - 0s 30ms/step - loss: 0.0197 - mae: 0.11
28 - val_loss: 0.0628 - val_mae: 0.2506
Epoch 150/250
19 - val_loss: 0.0619 - val_mae: 0.2487
Epoch 151/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0191 - mae: 0.11
10 - val_loss: 0.0610 - val_mae: 0.2470
Epoch 152/250
01 - val_loss: 0.0603 - val_mae: 0.2455
Epoch 153/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0184 - mae: 0.10
93 - val_loss: 0.0597 - val_mae: 0.2443
Epoch 154/250
86 - val_loss: 0.0591 - val_mae: 0.2431
Epoch 155/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0179 - mae: 0.10
78 - val_loss: 0.0586 - val_mae: 0.2421
Epoch 156/250
71 - val_loss: 0.0581 - val_mae: 0.2411
Epoch 157/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0173 - mae: 0.10
64 - val_loss: 0.0577 - val_mae: 0.2402
Epoch 158/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0170 - mae: 0.10
56 - val_loss: 0.0573 - val_mae: 0.2394
Epoch 159/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0168 - mae: 0.10
49 - val_loss: 0.0569 - val_mae: 0.2386
Epoch 160/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0165 - mae: 0.10
41 - val loss: 0.0566 - val mae: 0.2379
Epoch 161/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0163 - mae: 0.10
33 - val loss: 0.0563 - val mae: 0.2372
Epoch 162/250
26 - val loss: 0.0560 - val mae: 0.2366
Epoch 163/250
18 - val loss: 0.0558 - val mae: 0.2361
Epoch 164/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0155 - mae: 0.10
10 - val_loss: 0.0556 - val_mae: 0.2358
Epoch 165/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0153 - mae: 0.10
02 - val loss: 0.0555 - val mae: 0.2356
Epoch 166/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0151 - mae: 0.09
```

```
95 - val_loss: 0.0555 - val_mae: 0.2355
Epoch 167/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0149 - mae: 0.09
87 - val_loss: 0.0555 - val_mae: 0.2355
Epoch 168/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0147 - mae: 0.09
80 - val_loss: 0.0555 - val_mae: 0.2357
Epoch 169/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0144 - mae: 0.09
73 - val_loss: 0.0557 - val_mae: 0.2359
Epoch 170/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0142 - mae: 0.09
67 - val_loss: 0.0558 - val_mae: 0.2362
Epoch 171/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0140 - mae: 0.09
61 - val_loss: 0.0559 - val_mae: 0.2365
Epoch 172/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0139 - mae: 0.09
54 - val_loss: 0.0561 - val_mae: 0.2369
Epoch 173/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0137 - mae: 0.09
48 - val_loss: 0.0563 - val_mae: 0.2372
Epoch 174/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0135 - mae: 0.09
42 - val_loss: 0.0564 - val_mae: 0.2375
Epoch 175/250
36 - val_loss: 0.0565 - val_mae: 0.2378
Epoch 176/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0131 - mae: 0.09
29 - val_loss: 0.0567 - val_mae: 0.2380
Epoch 177/250
23 - val_loss: 0.0568 - val_mae: 0.2383
Epoch 178/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0128 - mae: 0.09
17 - val_loss: 0.0569 - val_mae: 0.2386
Epoch 179/250
11 - val_loss: 0.0570 - val_mae: 0.2388
Epoch 180/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0125 - mae: 0.09
04 - val_loss: 0.0572 - val_mae: 0.2391
Epoch 181/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0123 - mae: 0.08
98 - val_loss: 0.0573 - val_mae: 0.2394
Epoch 182/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0122 - mae: 0.08
92 - val_loss: 0.0574 - val_mae: 0.2396
Epoch 183/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0120 - mae: 0.08
88 - val loss: 0.0576 - val mae: 0.2399
Epoch 184/250
1/1 [===========] - 0s 31ms/step - loss: 0.0119 - mae: 0.08
84 - val loss: 0.0577 - val mae: 0.2402
Epoch 185/250
79 - val loss: 0.0578 - val mae: 0.2405
Epoch 186/250
75 - val loss: 0.0580 - val mae: 0.2407
Epoch 187/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0115 - mae: 0.08
71 - val_loss: 0.0581 - val_mae: 0.2410
Epoch 188/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0113 - mae: 0.08
67 - val loss: 0.0582 - val mae: 0.2413
Epoch 189/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0112 - mae: 0.08
```

```
63 - val_loss: 0.0583 - val_mae: 0.2415
Epoch 190/250
1/1 [=========== ] - 0s 34ms/step - loss: 0.0111 - mae: 0.08
58 - val_loss: 0.0585 - val_mae: 0.2418
Epoch 191/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0109 - mae: 0.08
54 - val_loss: 0.0586 - val_mae: 0.2420
Epoch 192/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0108 - mae: 0.08
50 - val_loss: 0.0587 - val_mae: 0.2423
Epoch 193/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0107 - mae: 0.08
46 - val_loss: 0.0589 - val_mae: 0.2426
Epoch 194/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0106 - mae: 0.08
41 - val_loss: 0.0590 - val_mae: 0.2430
Epoch 195/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0105 - mae: 0.08
37 - val_loss: 0.0592 - val_mae: 0.2433
Epoch 196/250
33 - val_loss: 0.0594 - val_mae: 0.2437
Epoch 197/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0102 - mae: 0.08
30 - val_loss: 0.0596 - val_mae: 0.2440
Epoch 198/250
27 - val_loss: 0.0597 - val_mae: 0.2444
Epoch 199/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0100 - mae: 0.08
23 - val_loss: 0.0599 - val_mae: 0.2448
Epoch 200/250
20 - val_loss: 0.0601 - val_mae: 0.2452
Epoch 201/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0098 - mae: 0.08
16 - val_loss: 0.0603 - val_mae: 0.2456
Epoch 202/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0097 - mae: 0.08
13 - val_loss: 0.0605 - val_mae: 0.2459
Epoch 203/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0096 - mae: 0.08
09 - val_loss: 0.0607 - val_mae: 0.2463
Epoch 204/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0095 - mae: 0.08
06 - val_loss: 0.0608 - val_mae: 0.2467
Epoch 205/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0094 - mae: 0.08
03 - val_loss: 0.0610 - val_mae: 0.2470
Epoch 206/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0093 - mae: 0.07
99 - val loss: 0.0612 - val mae: 0.2474
Epoch 207/250
1/1 [===========] - 0s 28ms/step - loss: 0.0092 - mae: 0.07
96 - val loss: 0.0614 - val mae: 0.2478
Epoch 208/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0091 - mae: 0.07
93 - val loss: 0.0616 - val mae: 0.2482
Epoch 209/250
89 - val loss: 0.0618 - val mae: 0.2486
Epoch 210/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0090 - mae: 0.07
86 - val_loss: 0.0620 - val_mae: 0.2490
Epoch 211/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0089 - mae: 0.07
82 - val loss: 0.0622 - val mae: 0.2494
Epoch 212/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0088 - mae: 0.07
```

```
79 - val_loss: 0.0624 - val_mae: 0.2498
Epoch 213/250
76 - val_loss: 0.0626 - val_mae: 0.2502
Epoch 214/250
72 - val_loss: 0.0628 - val_mae: 0.2506
Epoch 215/250
69 - val_loss: 0.0630 - val_mae: 0.2510
Epoch 216/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0085 - mae: 0.07
65 - val_loss: 0.0632 - val_mae: 0.2514
Epoch 217/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0084 - mae: 0.07
62 - val_loss: 0.0634 - val_mae: 0.2518
Epoch 218/250
1/1 [============] - 0s 38ms/step - loss: 0.0083 - mae: 0.07
59 - val_loss: 0.0636 - val_mae: 0.2521
Epoch 219/250
55 - val_loss: 0.0637 - val_mae: 0.2525
Epoch 220/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0081 - mae: 0.07
52 - val_loss: 0.0639 - val_mae: 0.2528
Epoch 221/250
48 - val_loss: 0.0641 - val_mae: 0.2531
Epoch 222/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0080 - mae: 0.07
45 - val_loss: 0.0642 - val_mae: 0.2534
Epoch 223/250
42 - val_loss: 0.0644 - val_mae: 0.2537
Epoch 224/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0078 - mae: 0.07
38 - val_loss: 0.0645 - val_mae: 0.2540
Epoch 225/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0078 - mae: 0.07
35 - val_loss: 0.0647 - val_mae: 0.2543
Epoch 226/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0077 - mae: 0.07
32 - val_loss: 0.0648 - val_mae: 0.2546
Epoch 227/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0076 - mae: 0.07
28 - val_loss: 0.0650 - val_mae: 0.2549
Epoch 228/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0075 - mae: 0.07
25 - val_loss: 0.0651 - val_mae: 0.2552
Epoch 229/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0075 - mae: 0.07
21 - val loss: 0.0652 - val mae: 0.2554
Epoch 230/250
1/1 [===========] - 0s 32ms/step - loss: 0.0074 - mae: 0.07
18 - val loss: 0.0654 - val mae: 0.2557
Epoch 231/250
15 - val loss: 0.0655 - val mae: 0.2559
Epoch 232/250
11 - val loss: 0.0656 - val mae: 0.2562
Epoch 233/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0072 - mae: 0.07
08 - val_loss: 0.0657 - val_mae: 0.2564
Epoch 234/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0071 - mae: 0.07
05 - val loss: 0.0659 - val mae: 0.2566
Epoch 235/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0071 - mae: 0.07
```

```
01 - val_loss: 0.0660 - val_mae: 0.2569
Epoch 236/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0070 - mae: 0.06
98 - val_loss: 0.0661 - val_mae: 0.2571
Epoch 237/250
1/1 [============ ] - 0s 52ms/step - loss: 0.0069 - mae: 0.06
94 - val_loss: 0.0662 - val_mae: 0.2573
Epoch 238/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0069 - mae: 0.06
91 - val_loss: 0.0663 - val_mae: 0.2575
Epoch 239/250
1/1 [=========== ] - 0s 32ms/step - loss: 0.0068 - mae: 0.06
88 - val_loss: 0.0664 - val_mae: 0.2578
Epoch 240/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0067 - mae: 0.06
84 - val_loss: 0.0665 - val_mae: 0.2580
Epoch 241/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0067 - mae: 0.06
81 - val_loss: 0.0666 - val_mae: 0.2582
Epoch 242/250
78 - val_loss: 0.0667 - val_mae: 0.2584
Epoch 243/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0065 - mae: 0.06
74 - val_loss: 0.0668 - val_mae: 0.2585
Epoch 244/250
71 - val_loss: 0.0669 - val_mae: 0.2587
Epoch 245/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0064 - mae: 0.06
67 - val_loss: 0.0670 - val_mae: 0.2589
Epoch 246/250
64 - val_loss: 0.0671 - val_mae: 0.2591
Epoch 247/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0063 - mae: 0.06
61 - val_loss: 0.0672 - val_mae: 0.2593
Epoch 248/250
57 - val_loss: 0.0673 - val_mae: 0.2594
Epoch 249/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0062 - mae: 0.06
54 - val_loss: 0.0674 - val_mae: 0.2596
Epoch 250/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0061 - mae: 0.06
51 - val_loss: 0.0675 - val_mae: 0.2598
Epoch 1/250
1/1 [============] - 1s 746ms/step - loss: 10.9134 - mae: 3.
2437 - val_loss: 11.7572 - val_mae: 3.4289
Epoch 2/250
1/1 [============= ] - 0s 31ms/step - loss: 9.7376 - mae: 3.08
01 - val loss: 11.2406 - val mae: 3.3527
Epoch 3/250
1/1 [============ ] - 0s 30ms/step - loss: 8.7616 - mae: 2.93
09 - val loss: 10.5509 - val mae: 3.2482
Epoch 4/250
1/1 [============ ] - 0s 32ms/step - loss: 7.9458 - mae: 2.79
49 - val loss: 9.7720 - val mae: 3.1260
Epoch 5/250
12 - val loss: 8.9711 - val mae: 2.9952
Epoch 6/250
95 - val_loss: 8.1895 - val_mae: 2.8617
Epoch 7/250
76 - val loss: 7.4535 - val_mae: 2.7301
Epoch 8/250
1/1 [=============== ] - 0s 43ms/step - loss: 5.7138 - mae: 2.36
```

```
37 - val_loss: 6.7826 - val_mae: 2.6043
Epoch 9/250
65 - val_loss: 6.1842 - val_mae: 2.4868
Epoch 10/250
1/1 [============] - 0s 38ms/step - loss: 4.9538 - mae: 2.19
54 - val_loss: 5.6579 - val_mae: 2.3786
Epoch 11/250
01 - val_loss: 5.1987 - val_mae: 2.2801
Epoch 12/250
04 - val_loss: 4.7993 - val_mae: 2.1907
Epoch 13/250
1/1 [============= ] - 0s 37ms/step - loss: 4.0862 - mae: 1.98
58 - val_loss: 4.4516 - val_mae: 2.1099
Epoch 14/250
1/1 [============ ] - 0s 39ms/step - loss: 3.8550 - mae: 1.92
61 - val_loss: 4.1479 - val_mae: 2.0366
Epoch 15/250
08 - val_loss: 3.8811 - val_mae: 1.9701
Epoch 16/250
1/1 [============== ] - 0s 43ms/step - loss: 3.4590 - mae: 1.81
92 - val_loss: 3.6452 - val_mae: 1.9092
Epoch 17/250
11 - val_loss: 3.4351 - val_mae: 1.8534
Epoch 18/250
1/1 [============= ] - 0s 33ms/step - loss: 3.1316 - mae: 1.72
59 - val_loss: 3.2466 - val_mae: 1.8018
Epoch 19/250
32 - val_loss: 3.0762 - val_mae: 1.7539
Epoch 20/250
1/1 [============== ] - 0s 36ms/step - loss: 2.8543 - mae: 1.64
27 - val_loss: 2.9208 - val_mae: 1.7090
Epoch 21/250
41 - val_loss: 2.7782 - val_mae: 1.6668
Epoch 22/250
1/1 [============== ] - 0s 33ms/step - loss: 2.6136 - mae: 1.56
71 - val_loss: 2.6465 - val_mae: 1.6268
Epoch 23/250
1/1 [============== ] - 0s 36ms/step - loss: 2.5041 - mae: 1.53
15 - val_loss: 2.5240 - val_mae: 1.5887
Epoch 24/250
71 - val_loss: 2.4096 - val_mae: 1.5523
Epoch 25/250
37 - val loss: 2.3020 - val mae: 1.5172
Epoch 26/250
12 - val loss: 2.2005 - val mae: 1.4834
Epoch 27/250
1/1 [============= ] - 0s 31ms/step - loss: 2.1196 - mae: 1.39
95 - val loss: 2.1043 - val mae: 1.4506
Epoch 28/250
86 - val loss: 2.0130 - val mae: 1.4188
Epoch 29/250
1/1 [============ ] - 0s 31ms/step - loss: 1.9526 - mae: 1.33
82 - val_loss: 1.9259 - val_mae: 1.3878
Epoch 30/250
1/1 [============ ] - 0s 30ms/step - loss: 1.8743 - mae: 1.30
85 - val loss: 1.8428 - val mae: 1.3575
Epoch 31/250
1/1 [============== ] - 0s 33ms/step - loss: 1.7991 - mae: 1.27
```

```
94 - val_loss: 1.7633 - val_mae: 1.3279
Epoch 32/250
07 - val_loss: 1.6872 - val_mae: 1.2989
Epoch 33/250
25 - val_loss: 1.6141 - val_mae: 1.2705
Epoch 34/250
48 - val_loss: 1.5440 - val_mae: 1.2426
Epoch 35/250
75 - val_loss: 1.4767 - val_mae: 1.2152
Epoch 36/250
1/1 [===========] - 0s 35ms/step - loss: 1.4642 - mae: 1.14
06 - val_loss: 1.4120 - val_mae: 1.1883
Epoch 37/250
41 - val_loss: 1.3498 - val_mae: 1.1618
Epoch 38/250
1/1 [============] - 0s 42ms/step - loss: 1.3473 - mae: 1.08
80 - val_loss: 1.2900 - val_mae: 1.1358
Epoch 39/250
1/1 [============= ] - 0s 54ms/step - loss: 1.2921 - mae: 1.06
23 - val_loss: 1.2325 - val_mae: 1.1102
Epoch 40/250
1/1 [============= ] - 0s 50ms/step - loss: 1.2390 - mae: 1.03
70 - val_loss: 1.1771 - val_mae: 1.0850
Epoch 41/250
21 - val_loss: 1.1239 - val_mae: 1.0601
Epoch 42/250
75 - val_loss: 1.0728 - val_mae: 1.0357
Epoch 43/250
1/1 [============= ] - 0s 51ms/step - loss: 1.0917 - mae: 0.96
33 - val_loss: 1.0236 - val_mae: 1.0117
Epoch 44/250
94 - val_loss: 0.9763 - val_mae: 0.9881
Epoch 45/250
1/1 [============== ] - 0s 34ms/step - loss: 1.0028 - mae: 0.91
59 - val_loss: 0.9308 - val_mae: 0.9648
Epoch 46/250
1/1 [============== ] - 0s 31ms/step - loss: 0.9611 - mae: 0.89
28 - val_loss: 0.8872 - val_mae: 0.9419
Epoch 47/250
1/1 [============= ] - 0s 33ms/step - loss: 0.9209 - mae: 0.87
00 - val_loss: 0.8453 - val_mae: 0.9194
Epoch 48/250
1/1 [============= ] - 0s 34ms/step - loss: 0.8825 - mae: 0.84
76 - val loss: 0.8050 - val mae: 0.8972
Epoch 49/250
1/1 [===========] - 0s 32ms/step - loss: 0.8456 - mae: 0.82
56 - val loss: 0.7664 - val mae: 0.8754
Epoch 50/250
1/1 [============= ] - 0s 32ms/step - loss: 0.8103 - mae: 0.80
38 - val loss: 0.7293 - val mae: 0.8540
Epoch 51/250
25 - val loss: 0.6938 - val mae: 0.8330
Epoch 52/250
1/1 [============ ] - 0s 30ms/step - loss: 0.7440 - mae: 0.76
15 - val loss: 0.6598 - val mae: 0.8123
Epoch 53/250
1/1 [============= ] - 0s 31ms/step - loss: 0.7131 - mae: 0.74
09 - val loss: 0.6271 - val mae: 0.7919
Epoch 54/250
1/1 [============== ] - 0s 32ms/step - loss: 0.6834 - mae: 0.72
```

```
06 - val_loss: 0.5959 - val_mae: 0.7719
Epoch 55/250
1/1 [============= ] - 0s 46ms/step - loss: 0.6551 - mae: 0.70
07 - val_loss: 0.5660 - val_mae: 0.7523
Epoch 56/250
1/1 [============ ] - 0s 57ms/step - loss: 0.6281 - mae: 0.68
11 - val_loss: 0.5373 - val_mae: 0.7330
Epoch 57/250
1/1 [============== ] - 0s 49ms/step - loss: 0.6023 - mae: 0.66
18 - val_loss: 0.5100 - val_mae: 0.7141
Epoch 58/250
30 - val_loss: 0.4838 - val_mae: 0.6955
Epoch 59/250
44 - val_loss: 0.4588 - val_mae: 0.6773
Epoch 60/250
1/1 [============ ] - 0s 47ms/step - loss: 0.5318 - mae: 0.60
63 - val_loss: 0.4349 - val_mae: 0.6595
Epoch 61/250
86 - val_loss: 0.4121 - val_mae: 0.6420
Epoch 62/250
1/1 [============== ] - 0s 31ms/step - loss: 0.4903 - mae: 0.57
25 - val_loss: 0.3904 - val_mae: 0.6248
Epoch 63/250
1/1 [============ ] - 0s 33ms/step - loss: 0.4710 - mae: 0.55
67 - val_loss: 0.3696 - val_mae: 0.6080
Epoch 64/250
1/1 [============== ] - 0s 47ms/step - loss: 0.4527 - mae: 0.54
13 - val_loss: 0.3499 - val_mae: 0.5915
Epoch 65/250
61 - val_loss: 0.3310 - val_mae: 0.5754
Epoch 66/250
13 - val_loss: 0.3131 - val_mae: 0.5596
Epoch 67/250
68 - val_loss: 0.2960 - val_mae: 0.5441
Epoch 68/250
1/1 [============== ] - 0s 50ms/step - loss: 0.3882 - mae: 0.48
39 - val_loss: 0.2798 - val_mae: 0.5290
Epoch 69/250
1/1 [============== ] - 0s 31ms/step - loss: 0.3742 - mae: 0.47
12 - val_loss: 0.2644 - val_mae: 0.5142
Epoch 70/250
1/1 [============= ] - 0s 33ms/step - loss: 0.3608 - mae: 0.45
88 - val_loss: 0.2497 - val_mae: 0.4997
Epoch 71/250
1/1 [============= ] - 0s 40ms/step - loss: 0.3482 - mae: 0.44
78 - val loss: 0.2358 - val mae: 0.4856
Epoch 72/250
1/1 [============ ] - 0s 48ms/step - loss: 0.3363 - mae: 0.43
75 - val loss: 0.2226 - val mae: 0.4718
Epoch 73/250
89 - val loss: 0.2100 - val mae: 0.4583
Epoch 74/250
08 - val loss: 0.1981 - val mae: 0.4451
Epoch 75/250
1/1 [============= ] - 0s 48ms/step - loss: 0.3044 - mae: 0.41
29 - val loss: 0.1869 - val mae: 0.4323
Epoch 76/250
1/1 [============= ] - 0s 38ms/step - loss: 0.2950 - mae: 0.40
52 - val loss: 0.1762 - val mae: 0.4197
Epoch 77/250
1/1 [============== ] - 0s 33ms/step - loss: 0.2861 - mae: 0.39
```

```
76 - val_loss: 0.1661 - val_mae: 0.4075
Epoch 78/250
03 - val_loss: 0.1565 - val_mae: 0.3956
Epoch 79/250
1/1 [============ ] - 0s 31ms/step - loss: 0.2698 - mae: 0.38
35 - val_loss: 0.1474 - val_mae: 0.3840
Epoch 80/250
83 - val_loss: 0.1389 - val_mae: 0.3726
Epoch 81/250
42 - val_loss: 0.1308 - val_mae: 0.3616
Epoch 82/250
02 - val_loss: 0.1231 - val_mae: 0.3509
Epoch 83/250
1/1 [============ ] - 0s 31ms/step - loss: 0.2427 - mae: 0.36
64 - val_loss: 0.1159 - val_mae: 0.3404
Epoch 84/250
1/1 [============= ] - 0s 30ms/step - loss: 0.2370 - mae: 0.36
26 - val_loss: 0.1091 - val_mae: 0.3303
Epoch 85/250
91 - val_loss: 0.1027 - val_mae: 0.3204
Epoch 86/250
1/1 [============= ] - 0s 32ms/step - loss: 0.2266 - mae: 0.35
63 - val_loss: 0.0966 - val_mae: 0.3108
Epoch 87/250
1/1 [============== ] - 0s 39ms/step - loss: 0.2219 - mae: 0.35
36 - val_loss: 0.0909 - val_mae: 0.3015
Epoch 88/250
10 - val_loss: 0.0855 - val_mae: 0.2924
Epoch 89/250
1/1 [============== ] - 0s 34ms/step - loss: 0.2134 - mae: 0.34
85 - val_loss: 0.0804 - val_mae: 0.2836
Epoch 90/250
60 - val_loss: 0.0757 - val_mae: 0.2751
Epoch 91/250
1/1 [============== ] - 0s 35ms/step - loss: 0.2060 - mae: 0.34
36 - val_loss: 0.0712 - val_mae: 0.2668
Epoch 92/250
1/1 [============== ] - 0s 37ms/step - loss: 0.2027 - mae: 0.34
16 - val_loss: 0.0670 - val_mae: 0.2588
Epoch 93/250
1/1 [============= ] - 0s 35ms/step - loss: 0.1996 - mae: 0.34
00 - val_loss: 0.0630 - val_mae: 0.2510
Epoch 94/250
1/1 [============= ] - 0s 34ms/step - loss: 0.1967 - mae: 0.33
85 - val loss: 0.0593 - val mae: 0.2434
Epoch 95/250
1/1 [============ ] - 0s 39ms/step - loss: 0.1940 - mae: 0.33
69 - val loss: 0.0558 - val mae: 0.2361
Epoch 96/250
55 - val loss: 0.0525 - val mae: 0.2291
Epoch 97/250
40 - val loss: 0.0494 - val mae: 0.2222
Epoch 98/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1871 - mae: 0.33
27 - val_loss: 0.0465 - val_mae: 0.2156
Epoch 99/250
1/1 [============ ] - 0s 37ms/step - loss: 0.1851 - mae: 0.33
13 - val loss: 0.0438 - val mae: 0.2092
Epoch 100/250
1/1 [============== ] - 0s 36ms/step - loss: 0.1833 - mae: 0.33
```

```
04 - val_loss: 0.0412 - val_mae: 0.2030
Epoch 101/250
1/1 [============= ] - 0s 35ms/step - loss: 0.1816 - mae: 0.32
97 - val_loss: 0.0388 - val_mae: 0.1971
Epoch 102/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1801 - mae: 0.32
94 - val_loss: 0.0366 - val_mae: 0.1913
Epoch 103/250
92 - val_loss: 0.0345 - val_mae: 0.1857
Epoch 104/250
1/1 [============ ] - 0s 34ms/step - loss: 0.1773 - mae: 0.32
89 - val_loss: 0.0325 - val_mae: 0.1804
Epoch 105/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1761 - mae: 0.32
87 - val_loss: 0.0307 - val_mae: 0.1752
Epoch 106/250
1/1 [============ ] - 0s 31ms/step - loss: 0.1750 - mae: 0.32
85 - val_loss: 0.0290 - val_mae: 0.1702
Epoch 107/250
83 - val_loss: 0.0274 - val_mae: 0.1654
Epoch 108/250
1/1 [=============== ] - ETA: 0s - loss: 0.1730 - mae: 0.328 - 0
s 30ms/step - loss: 0.1730 - mae: 0.3281 - val_loss: 0.0259 - val_mae: 0.1608
Epoch 109/250
1/1 [============= ] - 0s 33ms/step - loss: 0.1721 - mae: 0.32
79 - val_loss: 0.0244 - val_mae: 0.1563
Epoch 110/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1713 - mae: 0.32
77 - val_loss: 0.0231 - val_mae: 0.1521
Epoch 111/250
77 - val_loss: 0.0219 - val_mae: 0.1480
Epoch 112/250
1/1 [============== ] - 0s 34ms/step - loss: 0.1699 - mae: 0.32
79 - val_loss: 0.0207 - val_mae: 0.1440
Epoch 113/250
80 - val_loss: 0.0197 - val_mae: 0.1402
Epoch 114/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1688 - mae: 0.32
82 - val_loss: 0.0186 - val_mae: 0.1366
Epoch 115/250
1/1 [============== ] - 0s 33ms/step - loss: 0.1683 - mae: 0.32
83 - val_loss: 0.0177 - val_mae: 0.1331
Epoch 116/250
1/1 [============= ] - 0s 55ms/step - loss: 0.1678 - mae: 0.32
84 - val_loss: 0.0168 - val_mae: 0.1297
Epoch 117/250
1/1 [============= ] - 0s 56ms/step - loss: 0.1674 - mae: 0.32
85 - val loss: 0.0160 - val mae: 0.1265
Epoch 118/250
1/1 [===========] - 0s 43ms/step - loss: 0.1670 - mae: 0.32
86 - val loss: 0.0152 - val mae: 0.1234
Epoch 119/250
87 - val loss: 0.0145 - val mae: 0.1205
Epoch 120/250
88 - val loss: 0.0138 - val mae: 0.1177
Epoch 121/250
1/1 [============ ] - 0s 59ms/step - loss: 0.1660 - mae: 0.32
89 - val_loss: 0.0132 - val_mae: 0.1150
Epoch 122/250
1/1 [============ ] - 0s 60ms/step - loss: 0.1658 - mae: 0.32
90 - val_loss: 0.0126 - val_mae: 0.1124
Epoch 123/250
1/1 [============== ] - 0s 58ms/step - loss: 0.1655 - mae: 0.32
```

```
90 - val_loss: 0.0121 - val_mae: 0.1100
Epoch 124/250
91 - val_loss: 0.0116 - val_mae: 0.1076
Epoch 125/250
92 - val_loss: 0.0111 - val_mae: 0.1054
Epoch 126/250
92 - val_loss: 0.0107 - val_mae: 0.1033
Epoch 127/250
1/1 [============ ] - 0s 49ms/step - loss: 0.1647 - mae: 0.32
93 - val_loss: 0.0102 - val_mae: 0.1012
Epoch 128/250
94 - val_loss: 0.0099 - val_mae: 0.0993
Epoch 129/250
1/1 [============ ] - 0s 55ms/step - loss: 0.1645 - mae: 0.32
94 - val_loss: 0.0095 - val_mae: 0.0975
Epoch 130/250
94 - val_loss: 0.0092 - val_mae: 0.0957
Epoch 131/250
1/1 [============== ] - 0s 59ms/step - loss: 0.1642 - mae: 0.32
95 - val_loss: 0.0088 - val_mae: 0.0941
Epoch 132/250
95 - val_loss: 0.0086 - val_mae: 0.0925
Epoch 133/250
1/1 [============== ] - 0s 49ms/step - loss: 0.1640 - mae: 0.32
95 - val_loss: 0.0083 - val_mae: 0.0910
Epoch 134/250
96 - val_loss: 0.0080 - val_mae: 0.0896
Epoch 135/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1638 - mae: 0.32
96 - val_loss: 0.0078 - val_mae: 0.0882
Epoch 136/250
96 - val_loss: 0.0076 - val_mae: 0.0870
Epoch 137/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1637 - mae: 0.32
96 - val_loss: 0.0074 - val_mae: 0.0858
Epoch 138/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1636 - mae: 0.32
96 - val_loss: 0.0072 - val_mae: 0.0846
Epoch 139/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1635 - mae: 0.32
96 - val_loss: 0.0070 - val_mae: 0.0836
Epoch 140/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1635 - mae: 0.32
96 - val loss: 0.0068 - val mae: 0.0826
Epoch 141/250
1/1 [===========] - 0s 31ms/step - loss: 0.1634 - mae: 0.32
96 - val loss: 0.0067 - val mae: 0.0816
Epoch 142/250
96 - val loss: 0.0065 - val mae: 0.0807
Epoch 143/250
96 - val loss: 0.0064 - val mae: 0.0799
Epoch 144/250
1/1 [============ ] - 0s 31ms/step - loss: 0.1632 - mae: 0.32
96 - val_loss: 0.0063 - val_mae: 0.0791
Epoch 145/250
1/1 [============ ] - 0s 31ms/step - loss: 0.1632 - mae: 0.32
96 - val loss: 0.0061 - val mae: 0.0784
Epoch 146/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1631 - mae: 0.32
```

```
95 - val_loss: 0.0060 - val_mae: 0.0777
Epoch 147/250
1/1 [============ ] - 0s 31ms/step - loss: 0.1631 - mae: 0.32
95 - val_loss: 0.0059 - val_mae: 0.0770
Epoch 148/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1630 - mae: 0.32
95 - val_loss: 0.0058 - val_mae: 0.0764
Epoch 149/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1630 - mae: 0.32
94 - val_loss: 0.0058 - val_mae: 0.0759
Epoch 150/250
1/1 [============ ] - 0s 32ms/step - loss: 0.1629 - mae: 0.32
94 - val_loss: 0.0057 - val_mae: 0.0753
Epoch 151/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1628 - mae: 0.32
94 - val_loss: 0.0056 - val_mae: 0.0748
Epoch 152/250
1/1 [============ ] - 0s 31ms/step - loss: 0.1628 - mae: 0.32
93 - val_loss: 0.0055 - val_mae: 0.0744
Epoch 153/250
93 - val_loss: 0.0055 - val_mae: 0.0740
Epoch 154/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1627 - mae: 0.32
92 - val_loss: 0.0054 - val_mae: 0.0736
Epoch 155/250
92 - val_loss: 0.0054 - val_mae: 0.0732
Epoch 156/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1625 - mae: 0.32
91 - val_loss: 0.0053 - val_mae: 0.0729
Epoch 157/250
90 - val_loss: 0.0053 - val_mae: 0.0726
Epoch 158/250
1/1 [============= ] - 0s 33ms/step - loss: 0.1624 - mae: 0.32
90 - val_loss: 0.0052 - val_mae: 0.0723
Epoch 159/250
89 - val_loss: 0.0052 - val_mae: 0.0720
Epoch 160/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1623 - mae: 0.32
88 - val_loss: 0.0052 - val_mae: 0.0718
Epoch 161/250
1/1 [============== ] - 0s 56ms/step - loss: 0.1622 - mae: 0.32
87 - val_loss: 0.0051 - val_mae: 0.0716
Epoch 162/250
86 - val_loss: 0.0051 - val_mae: 0.0714
Epoch 163/250
1/1 [============= ] - 0s 33ms/step - loss: 0.1620 - mae: 0.32
86 - val loss: 0.0051 - val mae: 0.0712
Epoch 164/250
1/1 [===========] - 0s 30ms/step - loss: 0.1620 - mae: 0.32
85 - val loss: 0.0050 - val mae: 0.0710
Epoch 165/250
84 - val loss: 0.0050 - val mae: 0.0709
Epoch 166/250
83 - val loss: 0.0050 - val mae: 0.0707
Epoch 167/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1617 - mae: 0.32
82 - val_loss: 0.0050 - val_mae: 0.0706
Epoch 168/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1616 - mae: 0.32
81 - val loss: 0.0050 - val mae: 0.0705
Epoch 169/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1615 - mae: 0.32
```

```
80 - val_loss: 0.0050 - val_mae: 0.0704
Epoch 170/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1614 - mae: 0.32
79 - val_loss: 0.0049 - val_mae: 0.0703
Epoch 171/250
1/1 [============ ] - 0s 31ms/step - loss: 0.1612 - mae: 0.32
78 - val_loss: 0.0049 - val_mae: 0.0703
Epoch 172/250
1/1 [============ ] - 0s 33ms/step - loss: 0.1611 - mae: 0.32
76 - val_loss: 0.0049 - val_mae: 0.0702
Epoch 173/250
1/1 [============ ] - 0s 34ms/step - loss: 0.1610 - mae: 0.32
75 - val_loss: 0.0049 - val_mae: 0.0701
Epoch 174/250
73 - val_loss: 0.0049 - val_mae: 0.0701
Epoch 175/250
1/1 [============ ] - 0s 35ms/step - loss: 0.1607 - mae: 0.32
72 - val_loss: 0.0049 - val_mae: 0.0701
Epoch 176/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1605 - mae: 0.32
70 - val_loss: 0.0049 - val_mae: 0.0700
Epoch 177/250
1/1 [============= ] - 0s 33ms/step - loss: 0.1604 - mae: 0.32
68 - val_loss: 0.0049 - val_mae: 0.0700
Epoch 178/250
66 - val_loss: 0.0049 - val_mae: 0.0700
Epoch 179/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1600 - mae: 0.32
64 - val_loss: 0.0049 - val_mae: 0.0699
Epoch 180/250
62 - val_loss: 0.0049 - val_mae: 0.0699
Epoch 181/250
1/1 [============== ] - 0s 34ms/step - loss: 0.1596 - mae: 0.32
59 - val_loss: 0.0049 - val_mae: 0.0699
Epoch 182/250
57 - val_loss: 0.0049 - val_mae: 0.0699
Epoch 183/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1591 - mae: 0.32
54 - val_loss: 0.0049 - val_mae: 0.0698
Epoch 184/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1589 - mae: 0.32
51 - val_loss: 0.0049 - val_mae: 0.0698
Epoch 185/250
47 - val_loss: 0.0049 - val_mae: 0.0698
Epoch 186/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1583 - mae: 0.32
44 - val loss: 0.0049 - val mae: 0.0698
Epoch 187/250
1/1 [============ ] - 0s 30ms/step - loss: 0.1579 - mae: 0.32
40 - val loss: 0.0049 - val mae: 0.0698
Epoch 188/250
36 - val loss: 0.0049 - val mae: 0.0697
Epoch 189/250
31 - val loss: 0.0049 - val mae: 0.0697
Epoch 190/250
1/1 [============ ] - 0s 38ms/step - loss: 0.1567 - mae: 0.32
26 - val_loss: 0.0049 - val_mae: 0.0697
Epoch 191/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1562 - mae: 0.32
20 - val loss: 0.0048 - val mae: 0.0696
Epoch 192/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1557 - mae: 0.32
```

```
14 - val_loss: 0.0048 - val_mae: 0.0696
Epoch 193/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1551 - mae: 0.32
07 - val_loss: 0.0048 - val_mae: 0.0695
Epoch 194/250
99 - val_loss: 0.0048 - val_mae: 0.0694
Epoch 195/250
90 - val_loss: 0.0048 - val_mae: 0.0694
Epoch 196/250
1/1 [============ ] - 0s 42ms/step - loss: 0.1530 - mae: 0.31
80 - val_loss: 0.0048 - val_mae: 0.0693
Epoch 197/250
69 - val_loss: 0.0048 - val_mae: 0.0692
Epoch 198/250
1/1 [============ ] - 0s 40ms/step - loss: 0.1511 - mae: 0.31
56 - val_loss: 0.0048 - val_mae: 0.0690
Epoch 199/250
41 - val_loss: 0.0047 - val_mae: 0.0689
Epoch 200/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1487 - mae: 0.31
24 - val_loss: 0.0047 - val_mae: 0.0687
Epoch 201/250
03 - val_loss: 0.0047 - val_mae: 0.0685
Epoch 202/250
79 - val_loss: 0.0047 - val_mae: 0.0683
Epoch 203/250
50 - val_loss: 0.0046 - val_mae: 0.0680
Epoch 204/250
1/1 [============== ] - 0s 29ms/step - loss: 0.1422 - mae: 0.30
15 - val_loss: 0.0046 - val_mae: 0.0676
Epoch 205/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1404 - mae: 0.29
74 - val_loss: 0.0045 - val_mae: 0.0672
Epoch 206/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1388 - mae: 0.29
26 - val_loss: 0.0044 - val_mae: 0.0666
Epoch 207/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1377 - mae: 0.28
96 - val_loss: 0.0044 - val_mae: 0.0660
Epoch 208/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1374 - mae: 0.29
18 - val_loss: 0.0043 - val_mae: 0.0652
Epoch 209/250
1/1 [============] - 0s 36ms/step - loss: 0.1377 - mae: 0.29
37 - val loss: 0.0041 - val mae: 0.0642
Epoch 210/250
1/1 [===========] - 0s 43ms/step - loss: 0.1380 - mae: 0.29
45 - val loss: 0.0040 - val mae: 0.0631
Epoch 211/250
36 - val loss: 0.0038 - val mae: 0.0618
Epoch 212/250
10 - val loss: 0.0036 - val mae: 0.0603
Epoch 213/250
1/1 [============= ] - 0s 33ms/step - loss: 0.1342 - mae: 0.28
72 - val_loss: 0.0035 - val_mae: 0.0587
Epoch 214/250
1/1 [============ ] - 0s 33ms/step - loss: 0.1324 - mae: 0.28
30 - val loss: 0.0033 - val mae: 0.0571
Epoch 215/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1311 - mae: 0.27
```

```
88 - val_loss: 0.0031 - val_mae: 0.0554
Epoch 216/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1301 - mae: 0.27
49 - val_loss: 0.0029 - val_mae: 0.0536
Epoch 217/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1292 - mae: 0.27
37 - val_loss: 0.0027 - val_mae: 0.0519
Epoch 218/250
28 - val_loss: 0.0025 - val_mae: 0.0501
Epoch 219/250
11 - val_loss: 0.0023 - val_mae: 0.0483
Epoch 220/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1268 - mae: 0.26
92 - val_loss: 0.0022 - val_mae: 0.0465
Epoch 221/250
1/1 [============ ] - 0s 35ms/step - loss: 0.1259 - mae: 0.26
78 - val_loss: 0.0020 - val_mae: 0.0447
Epoch 222/250
72 - val_loss: 0.0018 - val_mae: 0.0429
Epoch 223/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1242 - mae: 0.26
80 - val_loss: 0.0017 - val_mae: 0.0410
Epoch 224/250
85 - val_loss: 0.0015 - val_mae: 0.0391
Epoch 225/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1229 - mae: 0.26
87 - val_loss: 0.0014 - val_mae: 0.0372
Epoch 226/250
85 - val_loss: 0.0012 - val_mae: 0.0353
Epoch 227/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1221 - mae: 0.26
79 - val_loss: 0.0011 - val_mae: 0.0333
Epoch 228/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1216 - mae: 0.26
68 - val_loss: 9.7692e-04 - val_mae: 0.0313
Epoch 229/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1209 - mae: 0.26
55 - val_loss: 8.5362e-04 - val_mae: 0.0292
Epoch 230/250
1/1 [============ ] - 0s 30ms/step - loss: 0.1200 - mae: 0.26
40 - val_loss: 7.3802e-04 - val_mae: 0.0272
Epoch 231/250
1/1 [============ ] - 0s 30ms/step - loss: 0.1190 - mae: 0.26
20 - val_loss: 6.3084e-04 - val_mae: 0.0251
Epoch 232/250
1/1 [============ ] - 0s 31ms/step - loss: 0.1179 - mae: 0.26
00 - val loss: 5.3255e-04 - val mae: 0.0231
Epoch 233/250
80 - val loss: 4.4350e-04 - val mae: 0.0211
Epoch 234/250
1/1 [============ ] - 0s 31ms/step - loss: 0.1159 - mae: 0.25
59 - val loss: 3.6378e-04 - val mae: 0.0191
Epoch 235/250
38 - val loss: 2.9329e-04 - val mae: 0.0171
Epoch 236/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1142 - mae: 0.25
18 - val_loss: 2.3175e-04 - val_mae: 0.0152
Epoch 237/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1134 - mae: 0.25
09 - val_loss: 1.7871e-04 - val_mae: 0.0134
Epoch 238/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1127 - mae: 0.24
```

```
99 - val_loss: 1.3365e-04 - val_mae: 0.0116
Epoch 239/250
86 - val_loss: 9.6011e-05 - val_mae: 0.0098
Epoch 240/250
1/1 [===========] - 0s 32ms/step - loss: 0.1111 - mae: 0.24
72 - val_loss: 6.5229e-05 - val_mae: 0.0081
Epoch 241/250
1/1 [============== ] - 0s 37ms/step - loss: 0.1102 - mae: 0.24
56 - val_loss: 4.0797e-05 - val_mae: 0.0064
Epoch 242/250
1/1 [============] - 0s 36ms/step - loss: 0.1094 - mae: 0.24
38 - val_loss: 2.2298e-05 - val_mae: 0.0047
Epoch 243/250
19 - val_loss: 9.4403e-06 - val_mae: 0.0031
Epoch 244/250
00 - val loss: 2.0389e-06 - val mae: 0.0014
Epoch 245/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1072 - mae: 0.23
85 - val_loss: 4.8322e-08 - val_mae: 2.1982e-04
Epoch 246/250
72 - val_loss: 3.5288e-06 - val_mae: 0.0019
Epoch 247/250
64 - val_loss: 1.2638e-05 - val_mae: 0.0036
Epoch 248/250
           ========= ] - 0s 32ms/step - loss: 0.1053 - mae: 0.23
71 - val_loss: 2.7582e-05 - val_mae: 0.0053
Epoch 249/250
1/1 [============== ] - 0s 34ms/step - loss: 0.1048 - mae: 0.23
74 - val_loss: 4.8587e-05 - val_mae: 0.0070
Epoch 250/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1042 - mae: 0.23
81 - val_loss: 7.5846e-05 - val_mae: 0.0087
Epoch 1/250
1/1 [============= ] - 1s 735ms/step - loss: 11.0559 - mae: 3.
2574 - val_loss: 9.5768 - val_mae: 3.0946
Epoch 2/250
1/1 [============== ] - 0s 34ms/step - loss: 10.1904 - mae: 3.1
044 - val_loss: 8.2938 - val_mae: 2.8799
Epoch 3/250
1/1 [============== ] - 0s 35ms/step - loss: 9.3289 - mae: 2.93
98 - val_loss: 7.0736 - val_mae: 2.6596
Epoch 4/250
46 - val_loss: 5.8863 - val_mae: 2.4262
Epoch 5/250
1/1 [============= ] - 0s 30ms/step - loss: 7.6434 - mae: 2.57
59 - val loss: 4.7535 - val mae: 2.1803
Epoch 6/250
31 - val loss: 3.7193 - val mae: 1.9285
Epoch 7/250
1/1 [============== ] - 0s 31ms/step - loss: 6.0210 - mae: 2.17
65 - val loss: 2.8185 - val mae: 1.6788
Epoch 8/250
32 - val loss: 2.0606 - val mae: 1.4355
Epoch 9/250
1/1 [============= ] - 0s 30ms/step - loss: 4.5482 - mae: 1.81
90 - val loss: 1.4492 - val mae: 1.2038
Epoch 10/250
1/1 [============ ] - 0s 38ms/step - loss: 3.8799 - mae: 1.65
43 - val loss: 0.9731 - val mae: 0.9865
Epoch 11/250
1/1 [============== ] - 0s 30ms/step - loss: 3.2679 - mae: 1.51
```

```
67 - val_loss: 0.6180 - val_mae: 0.7861
Epoch 12/250
40 - val_loss: 0.3703 - val_mae: 0.6085
Epoch 13/250
01 - val_loss: 0.2131 - val_mae: 0.4616
Epoch 14/250
01 - val_loss: 0.1196 - val_mae: 0.3459
Epoch 15/250
1/1 [============ ] - 0s 39ms/step - loss: 1.3671 - mae: 0.94
06 - val_loss: 0.0679 - val_mae: 0.2606
Epoch 16/250
93 - val_loss: 0.0419 - val_mae: 0.2047
Epoch 17/250
1/1 [============ ] - 0s 33ms/step - loss: 0.7439 - mae: 0.69
05 - val_loss: 0.0311 - val_mae: 0.1764
Epoch 18/250
1/1 [============= ] - 0s 53ms/step - loss: 0.5280 - mae: 0.58
03 - val loss: 0.0298 - val mae: 0.1726
Epoch 19/250
1/1 [============== ] - 0s 52ms/step - loss: 0.3897 - mae: 0.50
54 - val_loss: 0.0359 - val_mae: 0.1895
Epoch 20/250
66 - val_loss: 0.0492 - val_mae: 0.2219
Epoch 21/250
1/1 [============== ] - 0s 57ms/step - loss: 0.3630 - mae: 0.48
99 - val_loss: 0.0697 - val_mae: 0.2639
Epoch 22/250
76 - val_loss: 0.0961 - val_mae: 0.3099
Epoch 23/250
1/1 [============== ] - 0s 60ms/step - loss: 0.5546 - mae: 0.63
32 - val_loss: 0.1258 - val_mae: 0.3548
Epoch 24/250
93 - val_loss: 0.1552 - val_mae: 0.3939
Epoch 25/250
1/1 [============= ] - 0s 30ms/step - loss: 0.6551 - mae: 0.70
65 - val_loss: 0.1804 - val_mae: 0.4247
Epoch 26/250
1/1 [============== ] - 0s 30ms/step - loss: 0.6206 - mae: 0.69
13 - val_loss: 0.1993 - val_mae: 0.4465
Epoch 27/250
1/1 [============= ] - 0s 30ms/step - loss: 0.5447 - mae: 0.64
62 - val_loss: 0.2116 - val_mae: 0.4600
Epoch 28/250
1/1 [============ ] - 0s 34ms/step - loss: 0.4498 - mae: 0.58
35 - val loss: 0.2180 - val mae: 0.4669
Epoch 29/250
1/1 [============ ] - 0s 30ms/step - loss: 0.3557 - mae: 0.50
86 - val loss: 0.2202 - val mae: 0.4693
Epoch 30/250
1/1 [============ ] - 0s 31ms/step - loss: 0.2759 - mae: 0.42
84 - val loss: 0.2196 - val mae: 0.4686
Epoch 31/250
73 - val loss: 0.2172 - val mae: 0.4660
Epoch 32/250
1/1 [============= ] - 0s 33ms/step - loss: 0.1781 - mae: 0.34
30 - val_loss: 0.2136 - val_mae: 0.4622
Epoch 33/250
1/1 [============ ] - 0s 29ms/step - loss: 0.1577 - mae: 0.33
13 - val loss: 0.2089 - val mae: 0.4571
Epoch 34/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1506 - mae: 0.32
```

```
65 - val_loss: 0.2028 - val_mae: 0.4503
Epoch 35/250
30 - val_loss: 0.1947 - val_mae: 0.4413
Epoch 36/250
57 - val_loss: 0.1843 - val_mae: 0.4294
Epoch 37/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1653 - mae: 0.32
70 - val_loss: 0.1715 - val_mae: 0.4141
Epoch 38/250
55 - val_loss: 0.1562 - val_mae: 0.3952
Epoch 39/250
70 - val_loss: 0.1390 - val_mae: 0.3728
Epoch 40/250
1/1 [============ ] - 0s 33ms/step - loss: 0.1722 - mae: 0.32
50 - val_loss: 0.1206 - val_mae: 0.3472
Epoch 41/250
96 - val_loss: 0.1018 - val_mae: 0.3191
Epoch 42/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1587 - mae: 0.31
08 - val_loss: 0.0837 - val_mae: 0.2894
Epoch 43/250
05 - val_loss: 0.0670 - val_mae: 0.2588
Epoch 44/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1358 - mae: 0.28
70 - val_loss: 0.0523 - val_mae: 0.2286
Epoch 45/250
46 - val_loss: 0.0399 - val_mae: 0.1998
Epoch 46/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1117 - mae: 0.26
40 - val_loss: 0.0300 - val_mae: 0.1732
Epoch 47/250
21 - val_loss: 0.0224 - val_mae: 0.1497
Epoch 48/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0924 - mae: 0.24
49 - val_loss: 0.0169 - val_mae: 0.1300
Epoch 49/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0855 - mae: 0.24
01 - val_loss: 0.0131 - val_mae: 0.1144
Epoch 50/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0804 - mae: 0.23
46 - val_loss: 0.0106 - val_mae: 0.1031
Epoch 51/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0769 - mae: 0.22
97 - val loss: 0.0092 - val mae: 0.0959
Epoch 52/250
1/1 [============ ] - 0s 54ms/step - loss: 0.0747 - mae: 0.22
46 - val loss: 0.0086 - val mae: 0.0925
Epoch 53/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0735 - mae: 0.22
04 - val loss: 0.0085 - val mae: 0.0923
Epoch 54/250
57 - val loss: 0.0090 - val mae: 0.0947
Epoch 55/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0724 - mae: 0.21
14 - val loss: 0.0098 - val mae: 0.0988
Epoch 56/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0719 - mae: 0.20
64 - val loss: 0.0108 - val mae: 0.1040
Epoch 57/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0712 - mae: 0.20
```

```
23 - val_loss: 0.0120 - val_mae: 0.1096
Epoch 58/250
96 - val_loss: 0.0133 - val_mae: 0.1151
Epoch 59/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0687 - mae: 0.19
77 - val_loss: 0.0145 - val_mae: 0.1202
Epoch 60/250
61 - val_loss: 0.0156 - val_mae: 0.1247
Epoch 61/250
45 - val_loss: 0.0165 - val_mae: 0.1286
Epoch 62/250
34 - val_loss: 0.0174 - val_mae: 0.1319
Epoch 63/250
1/1 [===========] - 0s 43ms/step - loss: 0.0599 - mae: 0.19
36 - val_loss: 0.0182 - val_mae: 0.1348
Epoch 64/250
35 - val loss: 0.0190 - val mae: 0.1377
Epoch 65/250
33 - val_loss: 0.0198 - val_mae: 0.1407
Epoch 66/250
1/1 [============= ] - 0s 51ms/step - loss: 0.0542 - mae: 0.19
27 - val_loss: 0.0207 - val_mae: 0.1440
Epoch 67/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0530 - mae: 0.19
17 - val_loss: 0.0218 - val_mae: 0.1477
Epoch 68/250
04 - val_loss: 0.0230 - val_mae: 0.1518
Epoch 69/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0513 - mae: 0.18
87 - val_loss: 0.0243 - val_mae: 0.1560
Epoch 70/250
67 - val_loss: 0.0256 - val_mae: 0.1601
Epoch 71/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0500 - mae: 0.18
52 - val_loss: 0.0268 - val_mae: 0.1637
Epoch 72/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0494 - mae: 0.18
46 - val_loss: 0.0276 - val_mae: 0.1662
Epoch 73/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0487 - mae: 0.18
37 - val_loss: 0.0280 - val_mae: 0.1672
Epoch 74/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0480 - mae: 0.18
30 - val loss: 0.0276 - val mae: 0.1662
Epoch 75/250
1/1 [===========] - 0s 32ms/step - loss: 0.0473 - mae: 0.18
21 - val loss: 0.0265 - val mae: 0.1629
Epoch 76/250
09 - val loss: 0.0246 - val mae: 0.1570
Epoch 77/250
93 - val loss: 0.0221 - val mae: 0.1485
Epoch 78/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0449 - mae: 0.17
75 - val loss: 0.0189 - val mae: 0.1376
Epoch 79/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0442 - mae: 0.17
54 - val loss: 0.0155 - val mae: 0.1246
Epoch 80/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0434 - mae: 0.17
```

```
32 - val_loss: 0.0121 - val_mae: 0.1100
Epoch 81/250
08 - val_loss: 0.0089 - val_mae: 0.0943
Epoch 82/250
94 - val_loss: 0.0061 - val_mae: 0.0784
Epoch 83/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0413 - mae: 0.16
81 - val_loss: 0.0040 - val_mae: 0.0629
Epoch 84/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0407 - mae: 0.16
69 - val_loss: 0.0023 - val_mae: 0.0485
Epoch 85/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0403 - mae: 0.16
57 - val_loss: 0.0013 - val_mae: 0.0358
Epoch 86/250
1/1 [===========] - 0s 34ms/step - loss: 0.0398 - mae: 0.16
49 - val_loss: 6.3967e-04 - val_mae: 0.0253
Epoch 87/250
45 - val loss: 2.9630e-04 - val mae: 0.0172
Epoch 88/250
40 - val_loss: 1.3484e-04 - val_mae: 0.0116
Epoch 89/250
33 - val_loss: 6.9657e-05 - val_mae: 0.0083
Epoch 90/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0381 - mae: 0.16
26 - val_loss: 5.0479e-05 - val_mae: 0.0071
Epoch 91/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0376 - mae: 0.16
17 - val_loss: 5.5575e-05 - val_mae: 0.0075
Epoch 92/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0371 - mae: 0.16
07 - val_loss: 7.9018e-05 - val_mae: 0.0089
Epoch 93/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0366 - mae: 0.15
96 - val_loss: 1.1851e-04 - val_mae: 0.0109
Epoch 94/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0361 - mae: 0.15
84 - val_loss: 1.6798e-04 - val_mae: 0.0130
Epoch 95/250
71 - val_loss: 2.1606e-04 - val_mae: 0.0147
Epoch 96/250
57 - val_loss: 2.4936e-04 - val_mae: 0.0158
Epoch 97/250
44 - val loss: 2.5730e-04 - val mae: 0.0160
Epoch 98/250
30 - val loss: 2.3593e-04 - val mae: 0.0154
Epoch 99/250
17 - val loss: 1.8933e-04 - val mae: 0.0138
Epoch 100/250
05 - val loss: 1.2836e-04 - val mae: 0.0113
Epoch 101/250
1/1 [============] - 0s 36ms/step - loss: 0.0330 - mae: 0.14
94 - val loss: 6.7305e-05 - val mae: 0.0082
Epoch 102/250
1/1 [============] - 0s 36ms/step - loss: 0.0326 - mae: 0.14
86 - val_loss: 2.0581e-05 - val_mae: 0.0045
Epoch 103/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0323 - mae: 0.14
```

```
78 - val_loss: 2.2874e-07 - val_mae: 4.7827e-04
Epoch 104/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0319 - mae: 0.14
69 - val_loss: 1.4767e-05 - val_mae: 0.0038
Epoch 105/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0315 - mae: 0.14
61 - val_loss: 6.9403e-05 - val_mae: 0.0083
Epoch 106/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0311 - mae: 0.14
53 - val_loss: 1.6707e-04 - val_mae: 0.0129
Epoch 107/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0307 - mae: 0.14
44 - val_loss: 3.0993e-04 - val_mae: 0.0176
Epoch 108/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0303 - mae: 0.14
35 - val_loss: 5.0055e-04 - val_mae: 0.0224
Epoch 109/250
1/1 [===========] - 0s 36ms/step - loss: 0.0299 - mae: 0.14
25 - val_loss: 7.4244e-04 - val_mae: 0.0272
Epoch 110/250
15 - val_loss: 0.0010 - val_mae: 0.0323
Epoch 111/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0292 - mae: 0.14
05 - val_loss: 0.0014 - val_mae: 0.0374
Epoch 112/250
94 - val_loss: 0.0018 - val_mae: 0.0427
Epoch 113/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0285 - mae: 0.13
83 - val_loss: 0.0023 - val_mae: 0.0480
Epoch 114/250
72 - val_loss: 0.0029 - val_mae: 0.0534
Epoch 115/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0278 - mae: 0.13
60 - val_loss: 0.0035 - val_mae: 0.0588
Epoch 116/250
49 - val_loss: 0.0041 - val_mae: 0.0640
Epoch 117/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0271 - mae: 0.13
37 - val_loss: 0.0048 - val_mae: 0.0690
Epoch 118/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0268 - mae: 0.13
26 - val_loss: 0.0054 - val_mae: 0.0738
Epoch 119/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0265 - mae: 0.13
16 - val_loss: 0.0061 - val_mae: 0.0782
Epoch 120/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0261 - mae: 0.13
06 - val loss: 0.0068 - val mae: 0.0824
Epoch 121/250
1/1 [===========] - 0s 34ms/step - loss: 0.0258 - mae: 0.12
96 - val loss: 0.0074 - val mae: 0.0862
Epoch 122/250
87 - val loss: 0.0081 - val mae: 0.0899
Epoch 123/250
77 - val loss: 0.0087 - val mae: 0.0934
Epoch 124/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0248 - mae: 0.12
68 - val_loss: 0.0094 - val_mae: 0.0968
Epoch 125/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0245 - mae: 0.12
59 - val loss: 0.0101 - val mae: 0.1003
Epoch 126/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0241 - mae: 0.12
```

```
50 - val_loss: 0.0108 - val_mae: 0.1038
Epoch 127/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0238 - mae: 0.12
41 - val_loss: 0.0116 - val_mae: 0.1075
Epoch 128/250
32 - val_loss: 0.0124 - val_mae: 0.1114
Epoch 129/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0232 - mae: 0.12
23 - val_loss: 0.0133 - val_mae: 0.1154
Epoch 130/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0229 - mae: 0.12
14 - val_loss: 0.0143 - val_mae: 0.1197
Epoch 131/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0225 - mae: 0.12
05 - val_loss: 0.0154 - val_mae: 0.1241
Epoch 132/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0222 - mae: 0.11
96 - val_loss: 0.0165 - val_mae: 0.1285
Epoch 133/250
86 - val_loss: 0.0177 - val_mae: 0.1330
Epoch 134/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0216 - mae: 0.11
76 - val_loss: 0.0189 - val_mae: 0.1375
Epoch 135/250
67 - val_loss: 0.0201 - val_mae: 0.1419
Epoch 136/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0210 - mae: 0.11
57 - val_loss: 0.0214 - val_mae: 0.1462
Epoch 137/250
48 - val_loss: 0.0226 - val_mae: 0.1505
Epoch 138/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0204 - mae: 0.11
38 - val_loss: 0.0239 - val_mae: 0.1547
Epoch 139/250
29 - val_loss: 0.0252 - val_mae: 0.1588
Epoch 140/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0198 - mae: 0.11
19 - val_loss: 0.0266 - val_mae: 0.1630
Epoch 141/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0195 - mae: 0.11
10 - val_loss: 0.0279 - val_mae: 0.1671
Epoch 142/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0192 - mae: 0.11
01 - val_loss: 0.0294 - val_mae: 0.1713
Epoch 143/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0189 - mae: 0.10
92 - val loss: 0.0308 - val mae: 0.1756
Epoch 144/250
1/1 [===========] - 0s 33ms/step - loss: 0.0186 - mae: 0.10
83 - val loss: 0.0324 - val mae: 0.1800
Epoch 145/250
75 - val loss: 0.0340 - val mae: 0.1845
Epoch 146/250
67 - val loss: 0.0357 - val mae: 0.1890
Epoch 147/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0178 - mae: 0.10
59 - val_loss: 0.0375 - val_mae: 0.1935
Epoch 148/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0175 - mae: 0.10
51 - val loss: 0.0393 - val mae: 0.1981
Epoch 149/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0172 - mae: 0.10
```

```
43 - val_loss: 0.0411 - val_mae: 0.2027
Epoch 150/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0170 - mae: 0.10
35 - val_loss: 0.0430 - val_mae: 0.2073
Epoch 151/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0167 - mae: 0.10
27 - val_loss: 0.0449 - val_mae: 0.2119
Epoch 152/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0164 - mae: 0.10
19 - val_loss: 0.0468 - val_mae: 0.2164
Epoch 153/250
10 - val_loss: 0.0488 - val_mae: 0.2210
Epoch 154/250
02 - val_loss: 0.0509 - val_mae: 0.2255
Epoch 155/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0156 - mae: 0.09
93 - val_loss: 0.0529 - val_mae: 0.2301
Epoch 156/250
84 - val_loss: 0.0550 - val_mae: 0.2346
Epoch 157/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0151 - mae: 0.09
75 - val_loss: 0.0572 - val_mae: 0.2392
Epoch 158/250
66 - val_loss: 0.0594 - val_mae: 0.2438
Epoch 159/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0146 - mae: 0.09
57 - val_loss: 0.0617 - val_mae: 0.2484
Epoch 160/250
48 - val_loss: 0.0640 - val_mae: 0.2531
Epoch 161/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0141 - mae: 0.09
39 - val_loss: 0.0664 - val_mae: 0.2577
Epoch 162/250
31 - val_loss: 0.0688 - val_mae: 0.2623
Epoch 163/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0136 - mae: 0.09
22 - val_loss: 0.0712 - val_mae: 0.2668
Epoch 164/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0133 - mae: 0.09
13 - val_loss: 0.0736 - val_mae: 0.2713
Epoch 165/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0131 - mae: 0.09
05 - val_loss: 0.0760 - val_mae: 0.2757
Epoch 166/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0129 - mae: 0.08
97 - val loss: 0.0784 - val mae: 0.2801
Epoch 167/250
1/1 [===========] - 0s 38ms/step - loss: 0.0126 - mae: 0.08
89 - val loss: 0.0809 - val mae: 0.2844
Epoch 168/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0124 - mae: 0.08
82 - val loss: 0.0833 - val mae: 0.2886
Epoch 169/250
75 - val loss: 0.0858 - val mae: 0.2928
Epoch 170/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0120 - mae: 0.08
68 - val_loss: 0.0882 - val_mae: 0.2970
Epoch 171/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0117 - mae: 0.08
61 - val loss: 0.0907 - val mae: 0.3012
Epoch 172/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0115 - mae: 0.08
```

```
54 - val_loss: 0.0932 - val_mae: 0.3054
Epoch 173/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0113 - mae: 0.08
48 - val_loss: 0.0958 - val_mae: 0.3095
Epoch 174/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0111 - mae: 0.08
41 - val_loss: 0.0984 - val_mae: 0.3137
Epoch 175/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0109 - mae: 0.08
34 - val_loss: 0.1011 - val_mae: 0.3179
Epoch 176/250
1/1 [============ ] - 0s 28ms/step - loss: 0.0107 - mae: 0.08
27 - val_loss: 0.1038 - val_mae: 0.3221
Epoch 177/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0105 - mae: 0.08
20 - val_loss: 0.1065 - val_mae: 0.3263
Epoch 178/250
1/1 [=========== ] - 0s 31ms/step - loss: 0.0103 - mae: 0.08
13 - val_loss: 0.1092 - val_mae: 0.3305
Epoch 179/250
06 - val_loss: 0.1120 - val_mae: 0.3346
Epoch 180/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0099 - mae: 0.07
99 - val_loss: 0.1147 - val_mae: 0.3387
Epoch 181/250
92 - val_loss: 0.1175 - val_mae: 0.3428
Epoch 182/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0095 - mae: 0.07
86 - val_loss: 0.1203 - val_mae: 0.3468
Epoch 183/250
79 - val_loss: 0.1231 - val_mae: 0.3508
Epoch 184/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0091 - mae: 0.07
72 - val_loss: 0.1259 - val_mae: 0.3548
Epoch 185/250
65 - val_loss: 0.1287 - val_mae: 0.3587
Epoch 186/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0088 - mae: 0.07
58 - val_loss: 0.1315 - val_mae: 0.3626
Epoch 187/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0086 - mae: 0.07
51 - val_loss: 0.1343 - val_mae: 0.3664
Epoch 188/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0084 - mae: 0.07
44 - val_loss: 0.1371 - val_mae: 0.3702
Epoch 189/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0083 - mae: 0.07
38 - val loss: 0.1399 - val mae: 0.3740
Epoch 190/250
1/1 [===========] - 0s 30ms/step - loss: 0.0081 - mae: 0.07
31 - val loss: 0.1427 - val mae: 0.3777
Epoch 191/250
24 - val loss: 0.1455 - val mae: 0.3814
Epoch 192/250
17 - val loss: 0.1483 - val mae: 0.3851
Epoch 193/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0076 - mae: 0.07
10 - val_loss: 0.1511 - val_mae: 0.3887
Epoch 194/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0075 - mae: 0.07
04 - val loss: 0.1539 - val mae: 0.3923
Epoch 195/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0073 - mae: 0.06
```

```
97 - val_loss: 0.1567 - val_mae: 0.3958
Epoch 196/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0072 - mae: 0.06
91 - val_loss: 0.1595 - val_mae: 0.3994
Epoch 197/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0070 - mae: 0.06
85 - val_loss: 0.1623 - val_mae: 0.4029
Epoch 198/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0069 - mae: 0.06
79 - val_loss: 0.1652 - val_mae: 0.4064
Epoch 199/250
1/1 [=========== ] - 0s 30ms/step - loss: 0.0067 - mae: 0.06
73 - val_loss: 0.1680 - val_mae: 0.4099
Epoch 200/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0066 - mae: 0.06
67 - val_loss: 0.1709 - val_mae: 0.4134
Epoch 201/250
1/1 [===========] - 0s 33ms/step - loss: 0.0065 - mae: 0.06
61 - val_loss: 0.1738 - val_mae: 0.4169
Epoch 202/250
55 - val_loss: 0.1767 - val_mae: 0.4204
Epoch 203/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0062 - mae: 0.06
48 - val_loss: 0.1796 - val_mae: 0.4239
Epoch 204/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0061 - mae: 0.06
42 - val_loss: 0.1826 - val_mae: 0.4273
Epoch 205/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0059 - mae: 0.06
36 - val_loss: 0.1855 - val_mae: 0.4307
Epoch 206/250
30 - val_loss: 0.1885 - val_mae: 0.4341
Epoch 207/250
1/1 [============== ] - 0s 49ms/step - loss: 0.0057 - mae: 0.06
24 - val_loss: 0.1914 - val_mae: 0.4375
Epoch 208/250
18 - val_loss: 0.1943 - val_mae: 0.4408
Epoch 209/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0054 - mae: 0.06
12 - val_loss: 0.1973 - val_mae: 0.4442
Epoch 210/250
1/1 [============== ] - 0s 51ms/step - loss: 0.0053 - mae: 0.06
06 - val_loss: 0.2002 - val_mae: 0.4475
Epoch 211/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0052 - mae: 0.06
00 - val_loss: 0.2032 - val_mae: 0.4508
Epoch 212/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0051 - mae: 0.05
93 - val loss: 0.2061 - val mae: 0.4540
Epoch 213/250
1/1 [===========] - 0s 30ms/step - loss: 0.0050 - mae: 0.05
87 - val loss: 0.2091 - val mae: 0.4573
Epoch 214/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0048 - mae: 0.05
81 - val loss: 0.2121 - val mae: 0.4605
Epoch 215/250
75 - val loss: 0.2150 - val mae: 0.4637
Epoch 216/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0046 - mae: 0.05
68 - val_loss: 0.2180 - val_mae: 0.4669
Epoch 217/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0045 - mae: 0.05
62 - val loss: 0.2210 - val mae: 0.4701
Epoch 218/250
1/1 [============== ] - 0s 50ms/step - loss: 0.0044 - mae: 0.05
```

```
56 - val_loss: 0.2240 - val_mae: 0.4732
Epoch 219/250
1/1 [============= ] - 0s 48ms/step - loss: 0.0043 - mae: 0.05
50 - val_loss: 0.2269 - val_mae: 0.4764
Epoch 220/250
43 - val_loss: 0.2299 - val_mae: 0.4795
Epoch 221/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0041 - mae: 0.05
37 - val_loss: 0.2329 - val_mae: 0.4826
Epoch 222/250
1/1 [============ ] - 0s 51ms/step - loss: 0.0040 - mae: 0.05
31 - val_loss: 0.2358 - val_mae: 0.4856
Epoch 223/250
25 - val_loss: 0.2388 - val_mae: 0.4887
Epoch 224/250
1/1 [===========] - 0s 45ms/step - loss: 0.0038 - mae: 0.05
18 - val_loss: 0.2418 - val_mae: 0.4917
Epoch 225/250
12 - val_loss: 0.2447 - val_mae: 0.4947
Epoch 226/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0036 - mae: 0.05
06 - val_loss: 0.2477 - val_mae: 0.4977
Epoch 227/250
00 - val_loss: 0.2506 - val_mae: 0.5006
Epoch 228/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0035 - mae: 0.04
94 - val_loss: 0.2536 - val_mae: 0.5036
Epoch 229/250
87 - val_loss: 0.2565 - val_mae: 0.5065
Epoch 230/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0033 - mae: 0.04
81 - val_loss: 0.2594 - val_mae: 0.5093
Epoch 231/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0032 - mae: 0.04
75 - val_loss: 0.2624 - val_mae: 0.5122
Epoch 232/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0031 - mae: 0.04
69 - val_loss: 0.2653 - val_mae: 0.5151
Epoch 233/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0031 - mae: 0.04
63 - val_loss: 0.2682 - val_mae: 0.5179
Epoch 234/250
1/1 [============] - 0s 31ms/step - loss: 0.0030 - mae: 0.04
57 - val_loss: 0.2711 - val_mae: 0.5207
Epoch 235/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0029 - mae: 0.04
51 - val loss: 0.2740 - val mae: 0.5235
Epoch 236/250
1/1 [===========] - 0s 31ms/step - loss: 0.0028 - mae: 0.04
45 - val loss: 0.2769 - val mae: 0.5262
Epoch 237/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0027 - mae: 0.04
39 - val loss: 0.2798 - val mae: 0.5289
Epoch 238/250
33 - val loss: 0.2827 - val mae: 0.5317
Epoch 239/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0026 - mae: 0.04
27 - val_loss: 0.2855 - val_mae: 0.5343
Epoch 240/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0025 - mae: 0.04
21 - val loss: 0.2884 - val mae: 0.5370
Epoch 241/250
1/1 [=============== ] - 0s 30ms/step - loss: 0.0025 - mae: 0.04
```

```
15 - val_loss: 0.2912 - val_mae: 0.5396
Epoch 242/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0024 - mae: 0.04
09 - val_loss: 0.2940 - val_mae: 0.5422
Epoch 243/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0023 - mae: 0.04
03 - val_loss: 0.2968 - val_mae: 0.5448
Epoch 244/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0023 - mae: 0.03
98 - val_loss: 0.2996 - val_mae: 0.5473
Epoch 245/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0022 - mae: 0.03
92 - val_loss: 0.3023 - val_mae: 0.5498
Epoch 246/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0021 - mae: 0.03
86 - val_loss: 0.3051 - val_mae: 0.5523
Epoch 247/250
1/1 [===========] - 0s 43ms/step - loss: 0.0021 - mae: 0.03
80 - val_loss: 0.3078 - val_mae: 0.5548
Epoch 248/250
74 - val_loss: 0.3105 - val_mae: 0.5572
Epoch 249/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0020 - mae: 0.03
69 - val_loss: 0.3132 - val_mae: 0.5596
Epoch 250/250
63 - val_loss: 0.3159 - val_mae: 0.5620
Epoch 1/250
1/1 [============== ] - 1s 707ms/step - loss: 12.3998 - mae: 3.
4756 - val_loss: 14.4481 - val_mae: 3.8011
Epoch 2/250
1/1 [============== ] - 0s 30ms/step - loss: 11.6701 - mae: 3.3
762 - val_loss: 13.8788 - val_mae: 3.7254
Epoch 3/250
1/1 [============== ] - 0s 30ms/step - loss: 11.0311 - mae: 3.2
859 - val_loss: 13.3857 - val_mae: 3.6586
Epoch 4/250
1/1 [============= ] - 0s 31ms/step - loss: 10.4579 - mae: 3.2
018 - val_loss: 12.9381 - val_mae: 3.5970
Epoch 5/250
1/1 [============== ] - 0s 32ms/step - loss: 9.9485 - mae: 3.12
42 - val_loss: 12.5156 - val_mae: 3.5377
Epoch 6/250
1/1 [============== ] - 0s 29ms/step - loss: 9.4842 - mae: 3.05
10 - val_loss: 12.1101 - val_mae: 3.4800
Epoch 7/250
91 - val_loss: 11.7130 - val_mae: 3.4224
Epoch 8/250
82 - val loss: 11.3194 - val mae: 3.3644
Epoch 9/250
1/1 [============= ] - 0s 44ms/step - loss: 8.2175 - mae: 2.83
85 - val loss: 10.9272 - val mae: 3.3056
Epoch 10/250
1/1 [============= ] - 0s 41ms/step - loss: 7.8314 - mae: 2.76
98 - val loss: 10.5375 - val mae: 3.2461
Epoch 11/250
25 - val loss: 10.1524 - val mae: 3.1863
Epoch 12/250
1/1 [============ ] - 0s 31ms/step - loss: 7.1120 - mae: 2.63
68 - val_loss: 9.7736 - val_mae: 3.1263
Epoch 13/250
1/1 [============== ] - 0s 30ms/step - loss: 6.7801 - mae: 2.57
31 - val loss: 9.4017 - val mae: 3.0662
Epoch 14/250
1/1 [=============== ] - 0s 31ms/step - loss: 6.4677 - mae: 2.51
```

```
17 - val_loss: 9.0360 - val_mae: 3.0060
Epoch 15/250
29 - val_loss: 8.6783 - val_mae: 2.9459
Epoch 16/250
67 - val_loss: 8.3342 - val_mae: 2.8869
Epoch 17/250
33 - val_loss: 8.0056 - val_mae: 2.8294
Epoch 18/250
27 - val_loss: 7.6932 - val_mae: 2.7737
Epoch 19/250
46 - val_loss: 7.3973 - val_mae: 2.7198
Epoch 20/250
89 - val_loss: 7.1181 - val_mae: 2.6680
Epoch 21/250
52 - val_loss: 6.8559 - val_mae: 2.6184
Epoch 22/250
1/1 [============== ] - 0s 61ms/step - loss: 4.6237 - mae: 2.11
34 - val_loss: 6.6104 - val_mae: 2.5711
Epoch 23/250
33 - val_loss: 6.3808 - val_mae: 2.5260
Epoch 24/250
45 - val_loss: 6.1656 - val_mae: 2.4831
Epoch 25/250
70 - val_loss: 5.9634 - val_mae: 2.4420
Epoch 26/250
1/1 [============== ] - 0s 47ms/step - loss: 4.0011 - mae: 1.96
06 - val_loss: 5.7725 - val_mae: 2.4026
Epoch 27/250
51 - val_loss: 5.5917 - val_mae: 2.3647
Epoch 28/250
1/1 [============== ] - 0s 41ms/step - loss: 3.7310 - mae: 1.89
04 - val_loss: 5.4196 - val_mae: 2.3280
Epoch 29/250
65 - val_loss: 5.2551 - val_mae: 2.2924
Epoch 30/250
31 - val_loss: 5.0975 - val_mae: 2.2578
Epoch 31/250
03 - val loss: 4.9459 - val mae: 2.2239
Epoch 32/250
1/1 [============ ] - 0s 43ms/step - loss: 3.2479 - mae: 1.75
80 - val loss: 4.7998 - val mae: 2.1908
Epoch 33/250
1/1 [============ ] - 0s 45ms/step - loss: 3.1368 - mae: 1.72
61 - val loss: 4.6585 - val mae: 2.1584
Epoch 34/250
46 - val loss: 4.5218 - val mae: 2.1264
Epoch 35/250
1/1 [============= ] - 0s 32ms/step - loss: 2.9248 - mae: 1.66
35 - val loss: 4.3892 - val mae: 2.0950
Epoch 36/250
1/1 [============= ] - 0s 30ms/step - loss: 2.8235 - mae: 1.63
28 - val loss: 4.2605 - val mae: 2.0641
Epoch 37/250
1/1 [============== ] - 0s 30ms/step - loss: 2.7252 - mae: 1.60
```

```
24 - val_loss: 4.1355 - val_mae: 2.0336
Epoch 38/250
23 - val_loss: 4.0139 - val_mae: 2.0035
Epoch 39/250
26 - val_loss: 3.8958 - val_mae: 1.9738
Epoch 40/250
32 - val_loss: 3.7808 - val_mae: 1.9444
Epoch 41/250
41 - val_loss: 3.6690 - val_mae: 1.9155
Epoch 42/250
54 - val_loss: 3.5602 - val_mae: 1.8868
Epoch 43/250
70 - val_loss: 3.4543 - val_mae: 1.8586
Epoch 44/250
89 - val_loss: 3.3513 - val_mae: 1.8307
Epoch 45/250
1/1 [============== ] - 0s 31ms/step - loss: 2.0374 - mae: 1.37
11 - val_loss: 3.2511 - val_mae: 1.8031
Epoch 46/250
36 - val_loss: 3.1536 - val_mae: 1.7758
Epoch 47/250
65 - val_loss: 3.0588 - val_mae: 1.7490
Epoch 48/250
97 - val_loss: 2.9667 - val_mae: 1.7224
Epoch 49/250
1/1 [============== ] - 0s 32ms/step - loss: 1.7532 - mae: 1.26
32 - val_loss: 2.8770 - val_mae: 1.6962
Epoch 50/250
70 - val_loss: 2.7899 - val_mae: 1.6703
Epoch 51/250
1/1 [============== ] - 0s 32ms/step - loss: 1.6246 - mae: 1.21
12 - val_loss: 2.7053 - val_mae: 1.6448
Epoch 52/250
1/1 [============== ] - 0s 32ms/step - loss: 1.5635 - mae: 1.18
57 - val_loss: 2.6230 - val_mae: 1.6196
Epoch 53/250
06 - val_loss: 2.5431 - val_mae: 1.5947
Epoch 54/250
57 - val loss: 2.4655 - val mae: 1.5702
Epoch 55/250
1/1 [============= ] - 0s 30ms/step - loss: 1.3924 - mae: 1.11
12 - val loss: 2.3901 - val mae: 1.5460
Epoch 56/250
71 - val loss: 2.3169 - val mae: 1.5221
Epoch 57/250
32 - val loss: 2.2459 - val mae: 1.4986
Epoch 58/250
1/1 [============ ] - 0s 45ms/step - loss: 1.2387 - mae: 1.03
98 - val loss: 2.1770 - val mae: 1.4755
Epoch 59/250
1/1 [============== ] - 0s 48ms/step - loss: 1.1911 - mae: 1.01
66 - val_loss: 2.1101 - val_mae: 1.4526
Epoch 60/250
1/1 [============= ] - 0s 47ms/step - loss: 1.1452 - mae: 0.99
```

```
38 - val_loss: 2.0452 - val_mae: 1.4301
Epoch 61/250
13 - val_loss: 1.9823 - val_mae: 1.4079
Epoch 62/250
91 - val_loss: 1.9213 - val_mae: 1.3861
Epoch 63/250
73 - val_loss: 1.8622 - val_mae: 1.3646
Epoch 64/250
58 - val_loss: 1.8048 - val_mae: 1.3434
Epoch 65/250
1/1 [============ ] - 0s 37ms/step - loss: 0.9402 - mae: 0.88
47 - val_loss: 1.7493 - val_mae: 1.3226
Epoch 66/250
1/1 [============ ] - 0s 36ms/step - loss: 0.9038 - mae: 0.86
38 - val_loss: 1.6955 - val_mae: 1.3021
Epoch 67/250
34 - val_loss: 1.6433 - val_mae: 1.2819
Epoch 68/250
1/1 [============== ] - 0s 38ms/step - loss: 0.8352 - mae: 0.82
32 - val_loss: 1.5928 - val_mae: 1.2621
Epoch 69/250
33 - val_loss: 1.5439 - val_mae: 1.2425
Epoch 70/250
1/1 [============ ] - 0s 36ms/step - loss: 0.7719 - mae: 0.78
38 - val_loss: 1.4966 - val_mae: 1.2233
Epoch 71/250
46 - val_loss: 1.4508 - val_mae: 1.2045
Epoch 72/250
1/1 [============== ] - 0s 35ms/step - loss: 0.7137 - mae: 0.74
58 - val_loss: 1.4064 - val_mae: 1.1859
Epoch 73/250
72 - val_loss: 1.3635 - val_mae: 1.1677
Epoch 74/250
1/1 [============= ] - 0s 39ms/step - loss: 0.6602 - mae: 0.70
90 - val_loss: 1.3220 - val_mae: 1.1498
Epoch 75/250
1/1 [============== ] - 0s 41ms/step - loss: 0.6352 - mae: 0.69
11 - val_loss: 1.2818 - val_mae: 1.1322
Epoch 76/250
1/1 [============= ] - 0s 37ms/step - loss: 0.6111 - mae: 0.67
35 - val_loss: 1.2430 - val_mae: 1.1149
Epoch 77/250
1/1 [============= ] - 0s 35ms/step - loss: 0.5882 - mae: 0.65
62 - val loss: 1.2054 - val mae: 1.0979
Epoch 78/250
1/1 [============ ] - 0s 36ms/step - loss: 0.5662 - mae: 0.63
92 - val loss: 1.1691 - val mae: 1.0812
Epoch 79/250
1/1 [============ ] - 0s 51ms/step - loss: 0.5452 - mae: 0.62
26 - val loss: 1.1340 - val mae: 1.0649
Epoch 80/250
62 - val loss: 1.1001 - val mae: 1.0488
Epoch 81/250
1/1 [============= ] - 0s 38ms/step - loss: 0.5059 - mae: 0.59
02 - val_loss: 1.0673 - val_mae: 1.0331
Epoch 82/250
1/1 [============== ] - 0s 39ms/step - loss: 0.4875 - mae: 0.57
48 - val loss: 1.0356 - val mae: 1.0177
Epoch 83/250
1/1 [============== ] - 0s 39ms/step - loss: 0.4700 - mae: 0.56
```

```
06 - val_loss: 1.0050 - val_mae: 1.0025
Epoch 84/250
67 - val_loss: 0.9755 - val_mae: 0.9877
Epoch 85/250
1/1 [============ ] - 0s 34ms/step - loss: 0.4374 - mae: 0.53
30 - val_loss: 0.9469 - val_mae: 0.9731
Epoch 86/250
96 - val_loss: 0.9194 - val_mae: 0.9588
Epoch 87/250
65 - val_loss: 0.8928 - val_mae: 0.9449
Epoch 88/250
1/1 [============ ] - 0s 38ms/step - loss: 0.3940 - mae: 0.49
36 - val_loss: 0.8671 - val_mae: 0.9312
Epoch 89/250
1/1 [============ ] - 0s 36ms/step - loss: 0.3808 - mae: 0.48
12 - val_loss: 0.8423 - val_mae: 0.9178
Epoch 90/250
00 - val_loss: 0.8183 - val_mae: 0.9046
Epoch 91/250
1/1 [============= ] - 0s 36ms/step - loss: 0.3565 - mae: 0.45
89 - val_loss: 0.7953 - val_mae: 0.8918
Epoch 92/250
81 - val_loss: 0.7730 - val_mae: 0.8792
Epoch 93/250
1/1 [============ ] - 0s 35ms/step - loss: 0.3344 - mae: 0.43
80 - val_loss: 0.7515 - val_mae: 0.8669
Epoch 94/250
87 - val_loss: 0.7308 - val_mae: 0.8549
Epoch 95/250
1/1 [============== ] - 0s 39ms/step - loss: 0.3146 - mae: 0.42
01 - val_loss: 0.7108 - val_mae: 0.8431
Epoch 96/250
29 - val_loss: 0.6915 - val_mae: 0.8316
Epoch 97/250
1/1 [============== ] - 0s 44ms/step - loss: 0.2966 - mae: 0.40
60 - val_loss: 0.6729 - val_mae: 0.8203
Epoch 98/250
1/1 [============== ] - 0s 50ms/step - loss: 0.2884 - mae: 0.39
93 - val_loss: 0.6550 - val_mae: 0.8093
Epoch 99/250
1/1 [============= ] - 0s 51ms/step - loss: 0.2805 - mae: 0.39
27 - val_loss: 0.6377 - val_mae: 0.7986
Epoch 100/250
1/1 [============= ] - 0s 43ms/step - loss: 0.2731 - mae: 0.38
62 - val loss: 0.6211 - val mae: 0.7881
Epoch 101/250
1/1 [============= ] - 0s 39ms/step - loss: 0.2661 - mae: 0.38
00 - val loss: 0.6050 - val mae: 0.7778
Epoch 102/250
39 - val loss: 0.5895 - val mae: 0.7678
Epoch 103/250
87 - val loss: 0.5746 - val mae: 0.7581
Epoch 104/250
1/1 [============= ] - 0s 42ms/step - loss: 0.2472 - mae: 0.36
42 - val loss: 0.5603 - val mae: 0.7485
Epoch 105/250
1/1 [============= ] - 0s 30ms/step - loss: 0.2416 - mae: 0.36
08 - val loss: 0.5464 - val mae: 0.7392
Epoch 106/250
1/1 [============== ] - 0s 30ms/step - loss: 0.2363 - mae: 0.35
```

```
75 - val_loss: 0.5331 - val_mae: 0.7302
Epoch 107/250
1/1 [============= ] - 0s 33ms/step - loss: 0.2313 - mae: 0.35
42 - val_loss: 0.5203 - val_mae: 0.7213
Epoch 108/250
1/1 [============= ] - 0s 49ms/step - loss: 0.2266 - mae: 0.35
10 - val_loss: 0.5079 - val_mae: 0.7127
Epoch 109/250
80 - val_loss: 0.4960 - val_mae: 0.7043
Epoch 110/250
57 - val_loss: 0.4846 - val_mae: 0.6961
Epoch 111/250
34 - val_loss: 0.4735 - val_mae: 0.6881
Epoch 112/250
1/1 [============ ] - 0s 45ms/step - loss: 0.2102 - mae: 0.34
12 - val_loss: 0.4629 - val_mae: 0.6804
Epoch 113/250
90 - val_loss: 0.4527 - val_mae: 0.6728
Epoch 114/250
1/1 [============== ] - 0s 39ms/step - loss: 0.2034 - mae: 0.33
69 - val_loss: 0.4428 - val_mae: 0.6654
Epoch 115/250
48 - val_loss: 0.4333 - val_mae: 0.6583
Epoch 116/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1974 - mae: 0.33
28 - val_loss: 0.4242 - val_mae: 0.6513
Epoch 117/250
08 - val_loss: 0.4154 - val_mae: 0.6445
Epoch 118/250
1/1 [============== ] - 0s 45ms/step - loss: 0.1921 - mae: 0.32
91 - val_loss: 0.4070 - val_mae: 0.6380
Epoch 119/250
78 - val_loss: 0.3989 - val_mae: 0.6316
Epoch 120/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1875 - mae: 0.32
65 - val_loss: 0.3911 - val_mae: 0.6253
Epoch 121/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1854 - mae: 0.32
53 - val_loss: 0.3835 - val_mae: 0.6193
Epoch 122/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1834 - mae: 0.32
41 - val_loss: 0.3763 - val_mae: 0.6134
Epoch 123/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1815 - mae: 0.32
29 - val loss: 0.3693 - val mae: 0.6077
Epoch 124/250
1/1 [===========] - 0s 31ms/step - loss: 0.1798 - mae: 0.32
18 - val loss: 0.3626 - val mae: 0.6022
Epoch 125/250
07 - val loss: 0.3562 - val mae: 0.5968
Epoch 126/250
96 - val loss: 0.3500 - val mae: 0.5916
Epoch 127/250
85 - val_loss: 0.3441 - val_mae: 0.5866
Epoch 128/250
1/1 [============= ] - 0s 41ms/step - loss: 0.1739 - mae: 0.31
75 - val loss: 0.3384 - val mae: 0.5817
Epoch 129/250
1/1 [============== ] - 0s 38ms/step - loss: 0.1727 - mae: 0.31
```

```
70 - val_loss: 0.3329 - val_mae: 0.5769
Epoch 130/250
1/1 [============== ] - 0s 44ms/step - loss: 0.1716 - mae: 0.31
64 - val_loss: 0.3276 - val_mae: 0.5723
Epoch 131/250
60 - val_loss: 0.3225 - val_mae: 0.5679
Epoch 132/250
58 - val_loss: 0.3176 - val_mae: 0.5636
Epoch 133/250
1/1 [============ ] - 0s 32ms/step - loss: 0.1686 - mae: 0.31
56 - val_loss: 0.3129 - val_mae: 0.5594
Epoch 134/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1677 - mae: 0.31
55 - val_loss: 0.3084 - val_mae: 0.5554
Epoch 135/250
1/1 [===========] - 0s 31ms/step - loss: 0.1669 - mae: 0.31
53 - val_loss: 0.3041 - val_mae: 0.5514
Epoch 136/250
52 - val_loss: 0.2999 - val_mae: 0.5477
Epoch 137/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1655 - mae: 0.31
50 - val_loss: 0.2959 - val_mae: 0.5440
Epoch 138/250
49 - val_loss: 0.2921 - val_mae: 0.5405
Epoch 139/250
47 - val_loss: 0.2884 - val_mae: 0.5370
Epoch 140/250
46 - val_loss: 0.2849 - val_mae: 0.5337
Epoch 141/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1632 - mae: 0.31
44 - val_loss: 0.2815 - val_mae: 0.5306
Epoch 142/250
43 - val_loss: 0.2782 - val_mae: 0.5275
Epoch 143/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1623 - mae: 0.31
44 - val_loss: 0.2751 - val_mae: 0.5245
Epoch 144/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1619 - mae: 0.31
46 - val_loss: 0.2721 - val_mae: 0.5216
Epoch 145/250
1/1 [============= ] - 0s 46ms/step - loss: 0.1615 - mae: 0.31
47 - val_loss: 0.2692 - val_mae: 0.5189
Epoch 146/250
1/1 [============= ] - 0s 39ms/step - loss: 0.1612 - mae: 0.31
48 - val loss: 0.2665 - val mae: 0.5162
Epoch 147/250
1/1 [===========] - 0s 38ms/step - loss: 0.1609 - mae: 0.31
49 - val loss: 0.2638 - val mae: 0.5136
Epoch 148/250
1/1 [============= ] - 0s 44ms/step - loss: 0.1606 - mae: 0.31
50 - val loss: 0.2613 - val mae: 0.5112
Epoch 149/250
51 - val loss: 0.2589 - val mae: 0.5088
Epoch 150/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1601 - mae: 0.31
52 - val_loss: 0.2565 - val_mae: 0.5065
Epoch 151/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1598 - mae: 0.31
53 - val loss: 0.2543 - val mae: 0.5043
Epoch 152/250
1/1 [=============== ] - 0s 32ms/step - loss: 0.1596 - mae: 0.31
```

```
54 - val_loss: 0.2522 - val_mae: 0.5022
Epoch 153/250
54 - val_loss: 0.2501 - val_mae: 0.5001
Epoch 154/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1593 - mae: 0.31
55 - val_loss: 0.2481 - val_mae: 0.4981
Epoch 155/250
56 - val_loss: 0.2463 - val_mae: 0.4962
Epoch 156/250
1/1 [============ ] - 0s 35ms/step - loss: 0.1590 - mae: 0.31
57 - val_loss: 0.2445 - val_mae: 0.4944
Epoch 157/250
57 - val_loss: 0.2427 - val_mae: 0.4927
Epoch 158/250
1/1 [============ ] - 0s 36ms/step - loss: 0.1587 - mae: 0.31
58 - val_loss: 0.2411 - val_mae: 0.4910
Epoch 159/250
59 - val_loss: 0.2395 - val_mae: 0.4894
Epoch 160/250
1/1 [============== ] - 0s 35ms/step - loss: 0.1585 - mae: 0.31
59 - val_loss: 0.2380 - val_mae: 0.4879
Epoch 161/250
60 - val_loss: 0.2366 - val_mae: 0.4864
Epoch 162/250
61 - val_loss: 0.2352 - val_mae: 0.4850
Epoch 163/250
61 - val_loss: 0.2339 - val_mae: 0.4836
Epoch 164/250
1/1 [============== ] - 0s 34ms/step - loss: 0.1582 - mae: 0.31
62 - val_loss: 0.2326 - val_mae: 0.4823
Epoch 165/250
62 - val_loss: 0.2314 - val_mae: 0.4810
Epoch 166/250
1/1 [============== ] - 0s 33ms/step - loss: 0.1580 - mae: 0.31
63 - val_loss: 0.2303 - val_mae: 0.4798
Epoch 167/250
1/1 [============== ] - 0s 35ms/step - loss: 0.1580 - mae: 0.31
63 - val_loss: 0.2292 - val_mae: 0.4787
Epoch 168/250
1/1 [============= ] - 0s 34ms/step - loss: 0.1579 - mae: 0.31
64 - val_loss: 0.2281 - val_mae: 0.4776
Epoch 169/250
1/1 [============= ] - 0s 35ms/step - loss: 0.1579 - mae: 0.31
64 - val loss: 0.2271 - val mae: 0.4766
Epoch 170/250
1/1 [===========] - 0s 37ms/step - loss: 0.1578 - mae: 0.31
64 - val loss: 0.2262 - val mae: 0.4756
Epoch 171/250
65 - val loss: 0.2253 - val mae: 0.4746
Epoch 172/250
65 - val loss: 0.2244 - val mae: 0.4737
Epoch 173/250
1/1 [============= ] - 0s 29ms/step - loss: 0.1577 - mae: 0.31
66 - val_loss: 0.2236 - val_mae: 0.4728
Epoch 174/250
1/1 [============== ] - 0s 60ms/step - loss: 0.1577 - mae: 0.31
66 - val loss: 0.2228 - val mae: 0.4720
Epoch 175/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1577 - mae: 0.31
```

```
66 - val_loss: 0.2220 - val_mae: 0.4712
Epoch 176/250
67 - val_loss: 0.2213 - val_mae: 0.4705
Epoch 177/250
67 - val_loss: 0.2207 - val_mae: 0.4697
Epoch 178/250
67 - val_loss: 0.2200 - val_mae: 0.4691
Epoch 179/250
67 - val_loss: 0.2194 - val_mae: 0.4684
Epoch 180/250
68 - val_loss: 0.2188 - val_mae: 0.4678
Epoch 181/250
1/1 [============ ] - 0s 35ms/step - loss: 0.1576 - mae: 0.31
68 - val_loss: 0.2183 - val_mae: 0.4672
Epoch 182/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1576 - mae: 0.31
68 - val_loss: 0.2177 - val_mae: 0.4666
Epoch 183/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1576 - mae: 0.31
68 - val_loss: 0.2172 - val_mae: 0.4661
Epoch 184/250
69 - val_loss: 0.2168 - val_mae: 0.4656
Epoch 185/250
69 - val_loss: 0.2163 - val_mae: 0.4651
Epoch 186/250
69 - val_loss: 0.2159 - val_mae: 0.4647
Epoch 187/250
1/1 [============== ] - 0s 33ms/step - loss: 0.1575 - mae: 0.31
69 - val_loss: 0.2155 - val_mae: 0.4642
Epoch 188/250
69 - val_loss: 0.2151 - val_mae: 0.4638
Epoch 189/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1575 - mae: 0.31
69 - val_loss: 0.2148 - val_mae: 0.4634
Epoch 190/250
1/1 [============== ] - 0s 36ms/step - loss: 0.1575 - mae: 0.31
70 - val_loss: 0.2144 - val_mae: 0.4631
Epoch 191/250
70 - val_loss: 0.2141 - val_mae: 0.4627
Epoch 192/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1575 - mae: 0.31
70 - val loss: 0.2138 - val mae: 0.4624
Epoch 193/250
1/1 [============] - 0s 31ms/step - loss: 0.1575 - mae: 0.31
70 - val loss: 0.2135 - val mae: 0.4621
Epoch 194/250
70 - val loss: 0.2133 - val mae: 0.4618
Epoch 195/250
70 - val loss: 0.2130 - val mae: 0.4615
Epoch 196/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1575 - mae: 0.31
70 - val_loss: 0.2128 - val_mae: 0.4613
Epoch 197/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1575 - mae: 0.31
70 - val loss: 0.2125 - val mae: 0.4610
Epoch 198/250
1/1 [=============== ] - 0s 29ms/step - loss: 0.1575 - mae: 0.31
```

```
70 - val_loss: 0.2123 - val_mae: 0.4608
Epoch 199/250
71 - val_loss: 0.2121 - val_mae: 0.4606
Epoch 200/250
71 - val_loss: 0.2119 - val_mae: 0.4604
Epoch 201/250
71 - val_loss: 0.2118 - val_mae: 0.4602
Epoch 202/250
71 - val_loss: 0.2116 - val_mae: 0.4600
Epoch 203/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1575 - mae: 0.31
71 - val_loss: 0.2115 - val_mae: 0.4598
Epoch 204/250
1/1 [============ ] - 0s 30ms/step - loss: 0.1575 - mae: 0.31
71 - val_loss: 0.2113 - val_mae: 0.4597
Epoch 205/250
71 - val_loss: 0.2112 - val_mae: 0.4595
Epoch 206/250
1/1 [============== ] - 0s 33ms/step - loss: 0.1575 - mae: 0.31
71 - val_loss: 0.2111 - val_mae: 0.4594
Epoch 207/250
71 - val_loss: 0.2109 - val_mae: 0.4593
Epoch 208/250
71 - val_loss: 0.2108 - val_mae: 0.4592
Epoch 209/250
71 - val_loss: 0.2107 - val_mae: 0.4590
Epoch 210/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1575 - mae: 0.31
71 - val_loss: 0.2106 - val_mae: 0.4589
Epoch 211/250
71 - val_loss: 0.2105 - val_mae: 0.4588
Epoch 212/250
1/1 [============== ] - 0s 36ms/step - loss: 0.1575 - mae: 0.31
71 - val_loss: 0.2105 - val_mae: 0.4588
Epoch 213/250
1/1 [============== ] - 0s 35ms/step - loss: 0.1575 - mae: 0.31
71 - val_loss: 0.2104 - val_mae: 0.4587
Epoch 214/250
1/1 [============== ] - 0s 35ms/step - loss: 0.1575 - mae: 0.31
71 - val_loss: 0.2103 - val_mae: 0.4586
Epoch 215/250
71 - val loss: 0.2102 - val mae: 0.4585
Epoch 216/250
1/1 [============] - 0s 35ms/step - loss: 0.1575 - mae: 0.31
71 - val loss: 0.2102 - val mae: 0.4585
Epoch 217/250
71 - val loss: 0.2101 - val mae: 0.4584
Epoch 218/250
71 - val loss: 0.2101 - val mae: 0.4583
Epoch 219/250
1/1 [============= ] - 0s 34ms/step - loss: 0.1575 - mae: 0.31
71 - val loss: 0.2100 - val mae: 0.4583
Epoch 220/250
1/1 [============== ] - 0s 41ms/step - loss: 0.1575 - mae: 0.31
71 - val loss: 0.2100 - val mae: 0.4583
Epoch 221/250
1/1 [============== ] - 0s 37ms/step - loss: 0.1575 - mae: 0.31
```

```
71 - val_loss: 0.2100 - val_mae: 0.4582
Epoch 222/250
71 - val_loss: 0.2099 - val_mae: 0.4582
Epoch 223/250
71 - val_loss: 0.2099 - val_mae: 0.4581
Epoch 224/250
71 - val_loss: 0.2099 - val_mae: 0.4581
Epoch 225/250
71 - val_loss: 0.2098 - val_mae: 0.4581
Epoch 226/250
1/1 [============== ] - 0s 33ms/step - loss: 0.1574 - mae: 0.31
71 - val_loss: 0.2098 - val_mae: 0.4580
Epoch 227/250
1/1 [============ ] - 0s 29ms/step - loss: 0.1574 - mae: 0.31
71 - val_loss: 0.2098 - val_mae: 0.4580
Epoch 228/250
71 - val_loss: 0.2098 - val_mae: 0.4580
Epoch 229/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1574 - mae: 0.31
71 - val_loss: 0.2097 - val_mae: 0.4580
Epoch 230/250
71 - val_loss: 0.2097 - val_mae: 0.4580
Epoch 231/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1574 - mae: 0.31
71 - val_loss: 0.2097 - val_mae: 0.4579
Epoch 232/250
71 - val_loss: 0.2097 - val_mae: 0.4579
Epoch 233/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1574 - mae: 0.31
71 - val_loss: 0.2097 - val_mae: 0.4579
Epoch 234/250
71 - val_loss: 0.2097 - val_mae: 0.4579
Epoch 235/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1574 - mae: 0.31
71 - val_loss: 0.2097 - val_mae: 0.4579
Epoch 236/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1574 - mae: 0.31
71 - val_loss: 0.2097 - val_mae: 0.4579
Epoch 237/250
71 - val_loss: 0.2097 - val_mae: 0.4579
Epoch 238/250
71 - val loss: 0.2097 - val mae: 0.4579
Epoch 239/250
1/1 [===========] - 0s 34ms/step - loss: 0.1574 - mae: 0.31
71 - val loss: 0.2097 - val mae: 0.4579
Epoch 240/250
71 - val loss: 0.2097 - val mae: 0.4579
Epoch 241/250
71 - val loss: 0.2096 - val mae: 0.4579
Epoch 242/250
71 - val_loss: 0.2096 - val_mae: 0.4579
Epoch 243/250
1/1 [============ ] - 0s 33ms/step - loss: 0.1574 - mae: 0.31
71 - val loss: 0.2096 - val mae: 0.4579
Epoch 244/250
1/1 [=============== ] - 0s 30ms/step - loss: 0.1574 - mae: 0.31
```

```
71 - val_loss: 0.2096 - val_mae: 0.4579
Epoch 245/250
71 - val_loss: 0.2096 - val_mae: 0.4579
Epoch 246/250
71 - val_loss: 0.2096 - val_mae: 0.4579
Epoch 247/250
71 - val_loss: 0.2096 - val_mae: 0.4579
Epoch 248/250
71 - val_loss: 0.2096 - val_mae: 0.4579
Epoch 249/250
71 - val_loss: 0.2096 - val_mae: 0.4579
Epoch 250/250
1/1 [============ ] - 0s 32ms/step - loss: 0.1574 - mae: 0.31
71 - val_loss: 0.2096 - val_mae: 0.4579
Epoch 1/250
5217 - val_loss: 7.1602 - val_mae: 2.6759
Epoch 2/250
1/1 [============= ] - 0s 30ms/step - loss: 11.0791 - mae: 3.2
482 - val_loss: 6.1909 - val_mae: 2.4882
Epoch 3/250
97 - val_loss: 5.2857 - val_mae: 2.2991
Epoch 4/250
1/1 [============== ] - 0s 31ms/step - loss: 7.5909 - mae: 2.71
96 - val_loss: 4.3449 - val_mae: 2.0844
Epoch 5/250
42 - val_loss: 3.3784 - val_mae: 1.8381
Epoch 6/250
1/1 [============== ] - 0s 30ms/step - loss: 5.1564 - mae: 2.23
46 - val_loss: 2.4219 - val_mae: 1.5563
Epoch 7/250
27 - val_loss: 1.5427 - val_mae: 1.2420
Epoch 8/250
1/1 [============== ] - 0s 36ms/step - loss: 3.2697 - mae: 1.74
42 - val_loss: 0.8205 - val_mae: 0.9058
Epoch 9/250
1/1 [============== ] - 0s 38ms/step - loss: 2.4789 - mae: 1.48
64 - val_loss: 0.3097 - val_mae: 0.5565
Epoch 10/250
1/1 [============= ] - 0s 30ms/step - loss: 1.7969 - mae: 1.22
08 - val_loss: 0.0407 - val_mae: 0.2016
Epoch 11/250
1/1 [============= ] - 0s 31ms/step - loss: 1.2384 - mae: 0.97
52 - val loss: 0.0220 - val mae: 0.1485
Epoch 12/250
1/1 [============ ] - 0s 30ms/step - loss: 0.8187 - mae: 0.79
80 - val loss: 0.2298 - val mae: 0.4793
Epoch 13/250
1/1 [============= ] - 0s 30ms/step - loss: 0.5456 - mae: 0.64
38 - val loss: 0.5958 - val mae: 0.7719
Epoch 14/250
30 - val_loss: 1.0111 - val_mae: 1.0055
Epoch 15/250
1/1 [============= ] - 0s 30ms/step - loss: 0.3942 - mae: 0.50
25 - val_loss: 1.3551 - val_mae: 1.1641
Epoch 16/250
1/1 [============ ] - 0s 31ms/step - loss: 0.4500 - mae: 0.52
42 - val loss: 1.5398 - val mae: 1.2409
Epoch 17/250
1/1 [============== ] - 0s 31ms/step - loss: 0.5341 - mae: 0.60
```

```
04 - val_loss: 1.5366 - val_mae: 1.2396
Epoch 18/250
63 - val_loss: 1.3728 - val_mae: 1.1717
Epoch 19/250
1/1 [============= ] - 0s 32ms/step - loss: 0.6454 - mae: 0.72
91 - val_loss: 1.1075 - val_mae: 1.0524
Epoch 20/250
11 - val_loss: 0.8060 - val_mae: 0.8978
Epoch 21/250
79 - val_loss: 0.5227 - val_mae: 0.7229
Epoch 22/250
1/1 [============ ] - 0s 31ms/step - loss: 0.5299 - mae: 0.66
65 - val_loss: 0.2930 - val_mae: 0.5413
Epoch 23/250
1/1 [============= ] - 0s 33ms/step - loss: 0.4510 - mae: 0.59
43 - val_loss: 0.1326 - val_mae: 0.3641
Epoch 24/250
1/1 [============= ] - 0s 32ms/step - loss: 0.3742 - mae: 0.52
27 - val loss: 0.0404 - val mae: 0.2010
Epoch 25/250
1/1 [============== ] - 0s 30ms/step - loss: 0.3084 - mae: 0.48
59 - val_loss: 0.0035 - val_mae: 0.0593
Epoch 26/250
1/1 [============ ] - 0s 30ms/step - loss: 0.2582 - mae: 0.46
23 - val_loss: 0.0031 - val_mae: 0.0558
Epoch 27/250
1/1 [============= ] - 0s 29ms/step - loss: 0.2241 - mae: 0.43
61 - val_loss: 0.0201 - val_mae: 0.1416
Epoch 28/250
68 - val_loss: 0.0391 - val_mae: 0.1978
Epoch 29/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1937 - mae: 0.38
01 - val_loss: 0.0509 - val_mae: 0.2257
Epoch 30/250
71 - val_loss: 0.0521 - val_mae: 0.2283
Epoch 31/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1881 - mae: 0.34
99 - val_loss: 0.0438 - val_mae: 0.2092
Epoch 32/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1868 - mae: 0.34
25 - val_loss: 0.0298 - val_mae: 0.1726
Epoch 33/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1842 - mae: 0.34
14 - val_loss: 0.0150 - val_mae: 0.1224
Epoch 34/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1797 - mae: 0.33
87 - val loss: 0.0039 - val mae: 0.0621
Epoch 35/250
1/1 [============ ] - 0s 32ms/step - loss: 0.1733 - mae: 0.33
55 - val loss: 2.2942e-05 - val mae: 0.0048
Epoch 36/250
11 - val loss: 0.0057 - val mae: 0.0755
Epoch 37/250
27 - val loss: 0.0217 - val mae: 0.1474
Epoch 38/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1464 - mae: 0.31
19 - val_loss: 0.0476 - val_mae: 0.2182
Epoch 39/250
1/1 [============ ] - 0s 31ms/step - loss: 0.1368 - mae: 0.30
85 - val loss: 0.0818 - val mae: 0.2860
Epoch 40/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1276 - mae: 0.30
```

```
28 - val_loss: 0.1217 - val_mae: 0.3489
Epoch 41/250
45 - val_loss: 0.1644 - val_mae: 0.4055
Epoch 42/250
1/1 [============ ] - 0s 32ms/step - loss: 0.1120 - mae: 0.28
40 - val_loss: 0.2065 - val_mae: 0.4544
Epoch 43/250
18 - val_loss: 0.2446 - val_mae: 0.4946
Epoch 44/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1008 - mae: 0.25
84 - val_loss: 0.2760 - val_mae: 0.5254
Epoch 45/250
07 - val_loss: 0.2985 - val_mae: 0.5463
Epoch 46/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0929 - mae: 0.24
56 - val_loss: 0.3108 - val_mae: 0.5575
Epoch 47/250
08 - val_loss: 0.3127 - val_mae: 0.5592
Epoch 48/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0868 - mae: 0.23
53 - val_loss: 0.3048 - val_mae: 0.5521
Epoch 49/250
85 - val_loss: 0.2886 - val_mae: 0.5372
Epoch 50/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0815 - mae: 0.22
17 - val_loss: 0.2660 - val_mae: 0.5158
Epoch 51/250
69 - val_loss: 0.2395 - val_mae: 0.4894
Epoch 52/250
1/1 [=============== ] - 0s 40ms/step - loss: 0.0768 - mae: 0.21
17 - val_loss: 0.2112 - val_mae: 0.4595
Epoch 53/250
54 - val_loss: 0.1831 - val_mae: 0.4279
Epoch 54/250
1/1 [============== ] - 0s 28ms/step - loss: 0.0731 - mae: 0.20
07 - val_loss: 0.1570 - val_mae: 0.3962
Epoch 55/250
86 - val_loss: 0.1338 - val_mae: 0.3657
Epoch 56/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0703 - mae: 0.19
71 - val_loss: 0.1142 - val_mae: 0.3379
Epoch 57/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0691 - mae: 0.19
62 - val loss: 0.0984 - val mae: 0.3136
Epoch 58/250
1/1 [===========] - 0s 30ms/step - loss: 0.0678 - mae: 0.19
60 - val loss: 0.0862 - val mae: 0.2937
Epoch 59/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0664 - mae: 0.19
54 - val loss: 0.0776 - val mae: 0.2785
Epoch 60/250
50 - val loss: 0.0719 - val mae: 0.2682
Epoch 61/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0635 - mae: 0.19
42 - val loss: 0.0690 - val mae: 0.2628
Epoch 62/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0619 - mae: 0.19
31 - val loss: 0.0685 - val mae: 0.2618
Epoch 63/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0604 - mae: 0.19
```

```
21 - val_loss: 0.0701 - val_mae: 0.2648
Epoch 64/250
08 - val_loss: 0.0736 - val_mae: 0.2713
Epoch 65/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0576 - mae: 0.18
96 - val_loss: 0.0787 - val_mae: 0.2805
Epoch 66/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0564 - mae: 0.18
89 - val_loss: 0.0852 - val_mae: 0.2919
Epoch 67/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0554 - mae: 0.18
80 - val_loss: 0.0929 - val_mae: 0.3048
Epoch 68/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0545 - mae: 0.18
67 - val_loss: 0.1014 - val_mae: 0.3184
Epoch 69/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0537 - mae: 0.18
51 - val_loss: 0.1104 - val_mae: 0.3323
Epoch 70/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0529 - mae: 0.18
45 - val_loss: 0.1196 - val_mae: 0.3458
Epoch 71/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0521 - mae: 0.18
37 - val_loss: 0.1286 - val_mae: 0.3586
Epoch 72/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0513 - mae: 0.18
23 - val_loss: 0.1370 - val_mae: 0.3702
Epoch 73/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0505 - mae: 0.18
09 - val_loss: 0.1446 - val_mae: 0.3803
Epoch 74/250
97 - val_loss: 0.1512 - val_mae: 0.3888
Epoch 75/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0486 - mae: 0.17
86 - val_loss: 0.1564 - val_mae: 0.3955
Epoch 76/250
74 - val_loss: 0.1604 - val_mae: 0.4005
Epoch 77/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0468 - mae: 0.17
62 - val_loss: 0.1630 - val_mae: 0.4037
Epoch 78/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0459 - mae: 0.17
48 - val_loss: 0.1642 - val_mae: 0.4053
Epoch 79/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0450 - mae: 0.17
33 - val_loss: 0.1643 - val_mae: 0.4054
Epoch 80/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0442 - mae: 0.17
17 - val loss: 0.1634 - val mae: 0.4042
Epoch 81/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0435 - mae: 0.17
00 - val loss: 0.1617 - val mae: 0.4021
Epoch 82/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0429 - mae: 0.16
82 - val loss: 0.1593 - val mae: 0.3992
Epoch 83/250
64 - val loss: 0.1566 - val mae: 0.3958
Epoch 84/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0416 - mae: 0.16
51 - val loss: 0.1537 - val mae: 0.3921
Epoch 85/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0410 - mae: 0.16
42 - val loss: 0.1509 - val mae: 0.3884
Epoch 86/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0403 - mae: 0.16
```

```
32 - val_loss: 0.1481 - val_mae: 0.3849
Epoch 87/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0397 - mae: 0.16
22 - val_loss: 0.1457 - val_mae: 0.3817
Epoch 88/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0389 - mae: 0.16
11 - val_loss: 0.1436 - val_mae: 0.3790
Epoch 89/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0382 - mae: 0.16
00 - val_loss: 0.1419 - val_mae: 0.3767
Epoch 90/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0375 - mae: 0.15
88 - val_loss: 0.1407 - val_mae: 0.3751
Epoch 91/250
79 - val_loss: 0.1398 - val_mae: 0.3739
Epoch 92/250
1/1 [=========== ] - 0s 30ms/step - loss: 0.0361 - mae: 0.15
70 - val_loss: 0.1394 - val_mae: 0.3733
Epoch 93/250
61 - val_loss: 0.1392 - val_mae: 0.3731
Epoch 94/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0347 - mae: 0.15
51 - val_loss: 0.1394 - val_mae: 0.3734
Epoch 95/250
40 - val_loss: 0.1399 - val_mae: 0.3740
Epoch 96/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0336 - mae: 0.15
30 - val_loss: 0.1406 - val_mae: 0.3749
Epoch 97/250
18 - val_loss: 0.1414 - val_mae: 0.3761
Epoch 98/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0325 - mae: 0.15
06 - val_loss: 0.1424 - val_mae: 0.3774
Epoch 99/250
94 - val_loss: 0.1436 - val_mae: 0.3789
Epoch 100/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0314 - mae: 0.14
81 - val_loss: 0.1449 - val_mae: 0.3806
Epoch 101/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0308 - mae: 0.14
68 - val_loss: 0.1463 - val_mae: 0.3825
Epoch 102/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0303 - mae: 0.14
54 - val_loss: 0.1479 - val_mae: 0.3845
Epoch 103/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0297 - mae: 0.14
41 - val loss: 0.1496 - val mae: 0.3867
Epoch 104/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0292 - mae: 0.14
28 - val loss: 0.1514 - val mae: 0.3892
Epoch 105/250
14 - val loss: 0.1535 - val mae: 0.3918
Epoch 106/250
01 - val loss: 0.1557 - val mae: 0.3946
Epoch 107/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0277 - mae: 0.13
87 - val_loss: 0.1581 - val_mae: 0.3976
Epoch 108/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0272 - mae: 0.13
74 - val loss: 0.1606 - val mae: 0.4007
Epoch 109/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0267 - mae: 0.13
```

```
60 - val_loss: 0.1632 - val_mae: 0.4039
Epoch 110/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0263 - mae: 0.13
47 - val_loss: 0.1658 - val_mae: 0.4072
Epoch 111/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0259 - mae: 0.13
33 - val_loss: 0.1685 - val_mae: 0.4105
Epoch 112/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0255 - mae: 0.13
20 - val_loss: 0.1711 - val_mae: 0.4136
Epoch 113/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0250 - mae: 0.13
07 - val_loss: 0.1736 - val_mae: 0.4166
Epoch 114/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0246 - mae: 0.12
95 - val_loss: 0.1758 - val_mae: 0.4193
Epoch 115/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0243 - mae: 0.12
82 - val_loss: 0.1779 - val_mae: 0.4218
Epoch 116/250
70 - val_loss: 0.1797 - val_mae: 0.4239
Epoch 117/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0235 - mae: 0.12
59 - val_loss: 0.1812 - val_mae: 0.4257
Epoch 118/250
47 - val_loss: 0.1824 - val_mae: 0.4271
Epoch 119/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0228 - mae: 0.12
36 - val_loss: 0.1833 - val_mae: 0.4281
Epoch 120/250
25 - val_loss: 0.1839 - val_mae: 0.4289
Epoch 121/250
1/1 [============== ] - 0s 28ms/step - loss: 0.0221 - mae: 0.12
15 - val_loss: 0.1844 - val_mae: 0.4294
Epoch 122/250
05 - val_loss: 0.1847 - val_mae: 0.4298
Epoch 123/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0215 - mae: 0.11
98 - val_loss: 0.1850 - val_mae: 0.4301
Epoch 124/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0212 - mae: 0.11
89 - val_loss: 0.1853 - val_mae: 0.4305
Epoch 125/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0209 - mae: 0.11
81 - val_loss: 0.1857 - val_mae: 0.4309
Epoch 126/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0206 - mae: 0.11
73 - val loss: 0.1862 - val mae: 0.4315
Epoch 127/250
1/1 [===========] - 0s 30ms/step - loss: 0.0203 - mae: 0.11
64 - val loss: 0.1869 - val mae: 0.4323
Epoch 128/250
55 - val loss: 0.1878 - val mae: 0.4334
Epoch 129/250
47 - val loss: 0.1890 - val mae: 0.4348
Epoch 130/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0195 - mae: 0.11
37 - val loss: 0.1905 - val mae: 0.4365
Epoch 131/250
1/1 [=============== ] - 0s 32ms/step - loss: 0.0193 - mae: 0.11
28 - val loss: 0.1922 - val mae: 0.4384
Epoch 132/250
1/1 [=============== ] - 0s 33ms/step - loss: 0.0190 - mae: 0.11
```

```
19 - val_loss: 0.1941 - val_mae: 0.4406
Epoch 133/250
10 - val_loss: 0.1962 - val_mae: 0.4429
Epoch 134/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0185 - mae: 0.11
00 - val_loss: 0.1984 - val_mae: 0.4454
Epoch 135/250
91 - val_loss: 0.2007 - val_mae: 0.4480
Epoch 136/250
82 - val_loss: 0.2030 - val_mae: 0.4506
Epoch 137/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0179 - mae: 0.10
73 - val_loss: 0.2054 - val_mae: 0.4532
Epoch 138/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0176 - mae: 0.10
64 - val_loss: 0.2076 - val_mae: 0.4557
Epoch 139/250
55 - val_loss: 0.2098 - val_mae: 0.4581
Epoch 140/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0172 - mae: 0.10
47 - val_loss: 0.2119 - val_mae: 0.4604
Epoch 141/250
38 - val_loss: 0.2140 - val_mae: 0.4626
Epoch 142/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0168 - mae: 0.10
30 - val_loss: 0.2159 - val_mae: 0.4647
Epoch 143/250
22 - val_loss: 0.2178 - val_mae: 0.4667
Epoch 144/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0164 - mae: 0.10
16 - val_loss: 0.2197 - val_mae: 0.4687
Epoch 145/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0162 - mae: 0.10
09 - val_loss: 0.2216 - val_mae: 0.4707
Epoch 146/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0160 - mae: 0.10
03 - val_loss: 0.2235 - val_mae: 0.4728
Epoch 147/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0158 - mae: 0.09
97 - val_loss: 0.2255 - val_mae: 0.4748
Epoch 148/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0157 - mae: 0.09
92 - val_loss: 0.2275 - val_mae: 0.4770
Epoch 149/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0155 - mae: 0.09
86 - val loss: 0.2297 - val mae: 0.4793
Epoch 150/250
1/1 [===========] - 0s 31ms/step - loss: 0.0153 - mae: 0.09
80 - val loss: 0.2320 - val mae: 0.4816
Epoch 151/250
75 - val loss: 0.2343 - val mae: 0.4841
Epoch 152/250
69 - val loss: 0.2368 - val mae: 0.4866
Epoch 153/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0148 - mae: 0.09
64 - val loss: 0.2394 - val mae: 0.4893
Epoch 154/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0146 - mae: 0.09
59 - val loss: 0.2420 - val mae: 0.4919
Epoch 155/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0144 - mae: 0.09
```

```
54 - val_loss: 0.2447 - val_mae: 0.4947
Epoch 156/250
48 - val_loss: 0.2474 - val_mae: 0.4974
Epoch 157/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0141 - mae: 0.09
43 - val_loss: 0.2502 - val_mae: 0.5002
Epoch 158/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0139 - mae: 0.09
37 - val_loss: 0.2530 - val_mae: 0.5030
Epoch 159/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0138 - mae: 0.09
32 - val_loss: 0.2558 - val_mae: 0.5058
Epoch 160/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0136 - mae: 0.09
26 - val_loss: 0.2587 - val_mae: 0.5086
Epoch 161/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0135 - mae: 0.09
21 - val_loss: 0.2616 - val_mae: 0.5114
Epoch 162/250
15 - val_loss: 0.2645 - val_mae: 0.5143
Epoch 163/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0132 - mae: 0.09
09 - val_loss: 0.2674 - val_mae: 0.5171
Epoch 164/250
03 - val_loss: 0.2704 - val_mae: 0.5200
Epoch 165/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0128 - mae: 0.08
97 - val_loss: 0.2735 - val_mae: 0.5230
Epoch 166/250
92 - val_loss: 0.2766 - val_mae: 0.5259
Epoch 167/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0125 - mae: 0.08
87 - val_loss: 0.2798 - val_mae: 0.5289
Epoch 168/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0124 - mae: 0.08
81 - val_loss: 0.2830 - val_mae: 0.5320
Epoch 169/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0122 - mae: 0.08
76 - val_loss: 0.2863 - val_mae: 0.5351
Epoch 170/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0121 - mae: 0.08
71 - val_loss: 0.2896 - val_mae: 0.5382
Epoch 171/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0119 - mae: 0.08
66 - val_loss: 0.2930 - val_mae: 0.5413
Epoch 172/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0118 - mae: 0.08
61 - val loss: 0.2963 - val mae: 0.5444
Epoch 173/250
1/1 [===========] - 0s 31ms/step - loss: 0.0117 - mae: 0.08
56 - val loss: 0.2997 - val mae: 0.5475
Epoch 174/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0115 - mae: 0.08
50 - val loss: 0.3031 - val mae: 0.5506
Epoch 175/250
45 - val loss: 0.3065 - val mae: 0.5536
Epoch 176/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0112 - mae: 0.08
40 - val loss: 0.3099 - val mae: 0.5567
Epoch 177/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0111 - mae: 0.08
34 - val loss: 0.3132 - val mae: 0.5597
Epoch 178/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0109 - mae: 0.08
```

```
29 - val_loss: 0.3166 - val_mae: 0.5627
Epoch 179/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0108 - mae: 0.08
23 - val_loss: 0.3200 - val_mae: 0.5657
Epoch 180/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0107 - mae: 0.08
18 - val_loss: 0.3233 - val_mae: 0.5686
Epoch 181/250
1/1 [=========== ] - 0s 30ms/step - loss: 0.0105 - mae: 0.08
12 - val_loss: 0.3267 - val_mae: 0.5716
Epoch 182/250
1/1 [=========== ] - 0s 31ms/step - loss: 0.0104 - mae: 0.08
07 - val_loss: 0.3301 - val_mae: 0.5745
Epoch 183/250
1/1 [============] - 0s 31ms/step - loss: 0.0102 - mae: 0.08
01 - val_loss: 0.3334 - val_mae: 0.5774
Epoch 184/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0101 - mae: 0.07
95 - val_loss: 0.3368 - val_mae: 0.5804
Epoch 185/250
89 - val_loss: 0.3402 - val_mae: 0.5833
Epoch 186/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0098 - mae: 0.07
84 - val_loss: 0.3436 - val_mae: 0.5862
Epoch 187/250
78 - val_loss: 0.3470 - val_mae: 0.5891
Epoch 188/250
72 - val_loss: 0.3504 - val_mae: 0.5920
Epoch 189/250
66 - val_loss: 0.3538 - val_mae: 0.5948
Epoch 190/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0093 - mae: 0.07
60 - val_loss: 0.3572 - val_mae: 0.5977
Epoch 191/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0092 - mae: 0.07
54 - val_loss: 0.3606 - val_mae: 0.6005
Epoch 192/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0091 - mae: 0.07
48 - val_loss: 0.3640 - val_mae: 0.6033
Epoch 193/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0089 - mae: 0.07
42 - val_loss: 0.3674 - val_mae: 0.6061
Epoch 194/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0088 - mae: 0.07
36 - val_loss: 0.3708 - val_mae: 0.6089
Epoch 195/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0087 - mae: 0.07
30 - val loss: 0.3741 - val mae: 0.6117
Epoch 196/250
1/1 [===========] - 0s 31ms/step - loss: 0.0086 - mae: 0.07
24 - val loss: 0.3775 - val mae: 0.6144
Epoch 197/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0084 - mae: 0.07
18 - val loss: 0.3808 - val mae: 0.6171
Epoch 198/250
12 - val loss: 0.3841 - val mae: 0.6198
Epoch 199/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0082 - mae: 0.07
06 - val_loss: 0.3874 - val_mae: 0.6224
Epoch 200/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0081 - mae: 0.07
00 - val loss: 0.3907 - val mae: 0.6251
Epoch 201/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0079 - mae: 0.06
```

```
93 - val_loss: 0.3940 - val_mae: 0.6277
Epoch 202/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0078 - mae: 0.06
87 - val_loss: 0.3973 - val_mae: 0.6303
Epoch 203/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0077 - mae: 0.06
81 - val_loss: 0.4005 - val_mae: 0.6329
Epoch 204/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0076 - mae: 0.06
75 - val_loss: 0.4037 - val_mae: 0.6354
Epoch 205/250
1/1 [=========== ] - 0s 32ms/step - loss: 0.0075 - mae: 0.06
69 - val_loss: 0.4069 - val_mae: 0.6379
Epoch 206/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0074 - mae: 0.06
62 - val_loss: 0.4100 - val_mae: 0.6403
Epoch 207/250
1/1 [=========== ] - 0s 30ms/step - loss: 0.0072 - mae: 0.06
56 - val_loss: 0.4132 - val_mae: 0.6428
Epoch 208/250
50 - val_loss: 0.4163 - val_mae: 0.6452
Epoch 209/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0070 - mae: 0.06
44 - val_loss: 0.4193 - val_mae: 0.6476
Epoch 210/250
37 - val_loss: 0.4224 - val_mae: 0.6499
Epoch 211/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0068 - mae: 0.06
31 - val_loss: 0.4254 - val_mae: 0.6523
Epoch 212/250
25 - val_loss: 0.4285 - val_mae: 0.6546
Epoch 213/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0066 - mae: 0.06
19 - val_loss: 0.4315 - val_mae: 0.6569
Epoch 214/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0065 - mae: 0.06
12 - val_loss: 0.4344 - val_mae: 0.6591
Epoch 215/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0064 - mae: 0.06
06 - val_loss: 0.4374 - val_mae: 0.6614
Epoch 216/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0063 - mae: 0.06
00 - val_loss: 0.4404 - val_mae: 0.6636
Epoch 217/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0062 - mae: 0.05
94 - val_loss: 0.4433 - val_mae: 0.6658
Epoch 218/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0060 - mae: 0.05
87 - val loss: 0.4462 - val mae: 0.6680
Epoch 219/250
1/1 [===========] - 0s 31ms/step - loss: 0.0059 - mae: 0.05
81 - val loss: 0.4491 - val mae: 0.6701
Epoch 220/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0058 - mae: 0.05
75 - val loss: 0.4520 - val mae: 0.6723
Epoch 221/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0057 - mae: 0.05
69 - val loss: 0.4548 - val mae: 0.6744
Epoch 222/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0056 - mae: 0.05
62 - val_loss: 0.4576 - val_mae: 0.6765
Epoch 223/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0055 - mae: 0.05
56 - val loss: 0.4604 - val mae: 0.6785
Epoch 224/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0054 - mae: 0.05
```

```
50 - val_loss: 0.4631 - val_mae: 0.6805
Epoch 225/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0054 - mae: 0.05
44 - val_loss: 0.4658 - val_mae: 0.6825
Epoch 226/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0053 - mae: 0.05
38 - val_loss: 0.4685 - val_mae: 0.6845
Epoch 227/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0052 - mae: 0.05
32 - val_loss: 0.4712 - val_mae: 0.6864
Epoch 228/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0051 - mae: 0.05
27 - val_loss: 0.4738 - val_mae: 0.6883
Epoch 229/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0050 - mae: 0.05
21 - val_loss: 0.4764 - val_mae: 0.6902
Epoch 230/250
1/1 [=========== ] - 0s 32ms/step - loss: 0.0049 - mae: 0.05
15 - val_loss: 0.4790 - val_mae: 0.6921
Epoch 231/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0048 - mae: 0.05
09 - val_loss: 0.4815 - val_mae: 0.6939
Epoch 232/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0047 - mae: 0.05
04 - val_loss: 0.4841 - val_mae: 0.6958
Epoch 233/250
98 - val_loss: 0.4866 - val_mae: 0.6976
Epoch 234/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0045 - mae: 0.04
92 - val_loss: 0.4891 - val_mae: 0.6993
Epoch 235/250
87 - val_loss: 0.4915 - val_mae: 0.7011
Epoch 236/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0044 - mae: 0.04
81 - val_loss: 0.4939 - val_mae: 0.7028
Epoch 237/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0043 - mae: 0.04
76 - val_loss: 0.4963 - val_mae: 0.7045
Epoch 238/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0042 - mae: 0.04
70 - val_loss: 0.4987 - val_mae: 0.7062
Epoch 239/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0041 - mae: 0.04
65 - val_loss: 0.5011 - val_mae: 0.7079
Epoch 240/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0040 - mae: 0.04
59 - val_loss: 0.5034 - val_mae: 0.7095
Epoch 241/250
1/1 [============] - 0s 30ms/step - loss: 0.0040 - mae: 0.04
54 - val loss: 0.5057 - val mae: 0.7111
Epoch 242/250
1/1 [===========] - 0s 31ms/step - loss: 0.0039 - mae: 0.04
49 - val loss: 0.5079 - val mae: 0.7127
Epoch 243/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0038 - mae: 0.04
44 - val loss: 0.5102 - val mae: 0.7143
Epoch 244/250
39 - val loss: 0.5124 - val mae: 0.7158
Epoch 245/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0037 - mae: 0.04
34 - val_loss: 0.5146 - val_mae: 0.7173
Epoch 246/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0036 - mae: 0.04
29 - val loss: 0.5167 - val mae: 0.7188
Epoch 247/250
1/1 [=============== ] - 0s 30ms/step - loss: 0.0035 - mae: 0.04
```

```
24 - val_loss: 0.5189 - val_mae: 0.7203
Epoch 248/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0035 - mae: 0.04
19 - val_loss: 0.5210 - val_mae: 0.7218
Epoch 249/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0034 - mae: 0.04
14 - val_loss: 0.5230 - val_mae: 0.7232
Epoch 250/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0033 - mae: 0.04
10 - val_loss: 0.5251 - val_mae: 0.7246
Epoch 1/250
0623 - val_loss: 13.7870 - val_mae: 3.7131
Epoch 2/250
11 - val_loss: 12.4964 - val_mae: 3.5350
Epoch 3/250
1/1 [============= ] - 0s 29ms/step - loss: 7.3710 - mae: 2.49
77 - val_loss: 11.0966 - val_mae: 3.3312
Epoch 4/250
49 - val loss: 9.4320 - val mae: 3.0712
Epoch 5/250
1/1 [============== ] - 0s 30ms/step - loss: 4.6399 - mae: 1.86
73 - val_loss: 7.5096 - val_mae: 2.7404
Epoch 6/250
1/1 [============] - 0s 30ms/step - loss: 3.4441 - mae: 1.57
37 - val_loss: 5.6621 - val_mae: 2.3795
Epoch 7/250
1/1 [============== ] - 0s 30ms/step - loss: 2.4321 - mae: 1.30
63 - val_loss: 4.0279 - val_mae: 2.0070
Epoch 8/250
36 - val_loss: 2.6554 - val_mae: 1.6295
Epoch 9/250
1/1 [============== ] - 0s 31ms/step - loss: 1.0130 - mae: 0.88
14 - val_loss: 1.5939 - val_mae: 1.2625
Epoch 10/250
90 - val_loss: 0.8480 - val_mae: 0.9209
Epoch 11/250
1/1 [============== ] - 0s 31ms/step - loss: 0.4744 - mae: 0.59
47 - val_loss: 0.3844 - val_mae: 0.6200
Epoch 12/250
1/1 [============== ] - 0s 31ms/step - loss: 0.4977 - mae: 0.56
49 - val_loss: 0.1390 - val_mae: 0.3728
Epoch 13/250
1/1 [============ ] - 0s 30ms/step - loss: 0.6353 - mae: 0.60
73 - val_loss: 0.0346 - val_mae: 0.1860
Epoch 14/250
1/1 [============= ] - 0s 31ms/step - loss: 0.8024 - mae: 0.72
57 - val loss: 0.0035 - val mae: 0.0595
Epoch 15/250
1/1 [============= ] - 0s 31ms/step - loss: 0.9240 - mae: 0.79
86 - val loss: 1.4019e-04 - val mae: 0.0118
Epoch 16/250
1/1 [============= ] - 0s 32ms/step - loss: 0.9590 - mae: 0.80
92 - val loss: 0.0013 - val mae: 0.0366
Epoch 17/250
51 - val loss: 6.1835e-04 - val mae: 0.0249
Epoch 18/250
1/1 [============= ] - 0s 30ms/step - loss: 0.7813 - mae: 0.71
10 - val loss: 1.8039e-04 - val mae: 0.0134
Epoch 19/250
1/1 [============== ] - 0s 31ms/step - loss: 0.6250 - mae: 0.62
90 - val loss: 0.0048 - val mae: 0.0695
Epoch 20/250
1/1 [============== ] - 0s 34ms/step - loss: 0.4668 - mae: 0.54
```

```
07 - val_loss: 0.0185 - val_mae: 0.1359
Epoch 21/250
1/1 [============ ] - 0s 31ms/step - loss: 0.3303 - mae: 0.44
76 - val_loss: 0.0429 - val_mae: 0.2070
Epoch 22/250
1/1 [============ ] - 0s 31ms/step - loss: 0.2282 - mae: 0.36
48 - val_loss: 0.0774 - val_mae: 0.2782
Epoch 23/250
64 - val_loss: 0.1200 - val_mae: 0.3464
Epoch 24/250
97 - val_loss: 0.1676 - val_mae: 0.4093
Epoch 25/250
65 - val_loss: 0.2169 - val_mae: 0.4658
Epoch 26/250
1/1 [===========] - 0s 31ms/step - loss: 0.1512 - mae: 0.29
88 - val_loss: 0.2652 - val_mae: 0.5149
Epoch 27/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1732 - mae: 0.32
50 - val_loss: 0.3098 - val_mae: 0.5566
Epoch 28/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1955 - mae: 0.34
89 - val_loss: 0.3490 - val_mae: 0.5907
Epoch 29/250
30 - val_loss: 0.3810 - val_mae: 0.6172
Epoch 30/250
1/1 [============ ] - 0s 30ms/step - loss: 0.2223 - mae: 0.38
81 - val_loss: 0.4047 - val_mae: 0.6362
Epoch 31/250
37 - val_loss: 0.4193 - val_mae: 0.6475
Epoch 32/250
1/1 [============== ] - 0s 31ms/step - loss: 0.2146 - mae: 0.39
16 - val_loss: 0.4244 - val_mae: 0.6514
Epoch 33/250
22 - val_loss: 0.4197 - val_mae: 0.6479
Epoch 34/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1798 - mae: 0.36
65 - val_loss: 0.4058 - val_mae: 0.6370
Epoch 35/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1580 - mae: 0.34
56 - val_loss: 0.3833 - val_mae: 0.6191
Epoch 36/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1365 - mae: 0.32
05 - val_loss: 0.3534 - val_mae: 0.5945
Epoch 37/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1173 - mae: 0.29
48 - val loss: 0.3179 - val mae: 0.5638
Epoch 38/250
1/1 [===========] - 0s 29ms/step - loss: 0.1019 - mae: 0.27
41 - val loss: 0.2786 - val mae: 0.5278
Epoch 39/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0910 - mae: 0.25
90 - val loss: 0.2377 - val mae: 0.4875
Epoch 40/250
05 - val loss: 0.1973 - val mae: 0.4442
Epoch 41/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0823 - mae: 0.24
80 - val loss: 0.1594 - val mae: 0.3992
Epoch 42/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0830 - mae: 0.24
72 - val loss: 0.1254 - val mae: 0.3542
Epoch 43/250
1/1 [=============== ] - 0s 31ms/step - loss: 0.0856 - mae: 0.24
```

```
81 - val_loss: 0.0965 - val_mae: 0.3106
Epoch 44/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0889 - mae: 0.24
99 - val_loss: 0.0729 - val_mae: 0.2700
Epoch 45/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0918 - mae: 0.25
22 - val_loss: 0.0547 - val_mae: 0.2338
Epoch 46/250
39 - val_loss: 0.0413 - val_mae: 0.2031
Epoch 47/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0938 - mae: 0.25
35 - val_loss: 0.0320 - val_mae: 0.1788
Epoch 48/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0924 - mae: 0.25
17 - val_loss: 0.0260 - val_mae: 0.1613
Epoch 49/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0896 - mae: 0.24
86 - val_loss: 0.0227 - val_mae: 0.1508
Epoch 50/250
37 - val_loss: 0.0216 - val_mae: 0.1470
Epoch 51/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0815 - mae: 0.23
73 - val_loss: 0.0224 - val_mae: 0.1496
Epoch 52/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0770 - mae: 0.22
97 - val_loss: 0.0249 - val_mae: 0.1577
Epoch 53/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0729 - mae: 0.22
13 - val_loss: 0.0291 - val_mae: 0.1705
Epoch 54/250
43 - val_loss: 0.0350 - val_mae: 0.1870
Epoch 55/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0664 - mae: 0.20
78 - val_loss: 0.0425 - val_mae: 0.2061
Epoch 56/250
22 - val_loss: 0.0515 - val_mae: 0.2269
Epoch 57/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0626 - mae: 0.19
97 - val_loss: 0.0616 - val_mae: 0.2483
Epoch 58/250
93 - val_loss: 0.0726 - val_mae: 0.2694
Epoch 59/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0608 - mae: 0.19
99 - val_loss: 0.0837 - val_mae: 0.2893
Epoch 60/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0602 - mae: 0.20
23 - val loss: 0.0945 - val mae: 0.3075
Epoch 61/250
1/1 [===========] - 0s 32ms/step - loss: 0.0598 - mae: 0.20
38 - val loss: 0.1045 - val mae: 0.3232
Epoch 62/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0593 - mae: 0.20
46 - val loss: 0.1129 - val mae: 0.3361
Epoch 63/250
45 - val loss: 0.1196 - val mae: 0.3458
Epoch 64/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0581 - mae: 0.20
37 - val loss: 0.1240 - val mae: 0.3522
Epoch 65/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0572 - mae: 0.20
22 - val loss: 0.1262 - val mae: 0.3552
Epoch 66/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0562 - mae: 0.20
```

```
07 - val_loss: 0.1261 - val_mae: 0.3551
Epoch 67/250
89 - val_loss: 0.1239 - val_mae: 0.3519
Epoch 68/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0537 - mae: 0.19
66 - val_loss: 0.1198 - val_mae: 0.3461
Epoch 69/250
40 - val_loss: 0.1143 - val_mae: 0.3381
Epoch 70/250
12 - val_loss: 0.1077 - val_mae: 0.3282
Epoch 71/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0497 - mae: 0.18
83 - val_loss: 0.1006 - val_mae: 0.3171
Epoch 72/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0486 - mae: 0.18
53 - val_loss: 0.0932 - val_mae: 0.3053
Epoch 73/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0476 - mae: 0.18
23 - val loss: 0.0860 - val mae: 0.2932
Epoch 74/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0468 - mae: 0.17
95 - val_loss: 0.0792 - val_mae: 0.2815
Epoch 75/250
76 - val_loss: 0.0732 - val_mae: 0.2706
Epoch 76/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0455 - mae: 0.17
63 - val_loss: 0.0680 - val_mae: 0.2608
Epoch 77/250
51 - val_loss: 0.0638 - val_mae: 0.2526
Epoch 78/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0444 - mae: 0.17
38 - val_loss: 0.0606 - val_mae: 0.2463
Epoch 79/250
25 - val_loss: 0.0585 - val_mae: 0.2419
Epoch 80/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0432 - mae: 0.17
13 - val_loss: 0.0573 - val_mae: 0.2395
Epoch 81/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0425 - mae: 0.17
00 - val_loss: 0.0571 - val_mae: 0.2390
Epoch 82/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0417 - mae: 0.16
86 - val_loss: 0.0578 - val_mae: 0.2403
Epoch 83/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0409 - mae: 0.16
70 - val loss: 0.0591 - val mae: 0.2431
Epoch 84/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0400 - mae: 0.16
53 - val loss: 0.0611 - val mae: 0.2472
Epoch 85/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0392 - mae: 0.16
44 - val loss: 0.0635 - val mae: 0.2520
Epoch 86/250
36 - val loss: 0.0662 - val mae: 0.2572
Epoch 87/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0376 - mae: 0.16
29 - val loss: 0.0688 - val mae: 0.2624
Epoch 88/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0368 - mae: 0.16
20 - val loss: 0.0714 - val mae: 0.2671
Epoch 89/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0361 - mae: 0.16
```

```
12 - val_loss: 0.0735 - val_mae: 0.2711
Epoch 90/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0355 - mae: 0.16
03 - val_loss: 0.0750 - val_mae: 0.2739
Epoch 91/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0348 - mae: 0.15
92 - val_loss: 0.0759 - val_mae: 0.2755
Epoch 92/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0342 - mae: 0.15
80 - val_loss: 0.0759 - val_mae: 0.2756
Epoch 93/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0336 - mae: 0.15
67 - val_loss: 0.0752 - val_mae: 0.2742
Epoch 94/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0329 - mae: 0.15
53 - val_loss: 0.0737 - val_mae: 0.2714
Epoch 95/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0323 - mae: 0.15
37 - val_loss: 0.0715 - val_mae: 0.2673
Epoch 96/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0316 - mae: 0.15
21 - val_loss: 0.0687 - val_mae: 0.2621
Epoch 97/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0309 - mae: 0.15
03 - val_loss: 0.0655 - val_mae: 0.2560
Epoch 98/250
85 - val_loss: 0.0622 - val_mae: 0.2494
Epoch 99/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0296 - mae: 0.14
71 - val_loss: 0.0588 - val_mae: 0.2425
Epoch 100/250
56 - val_loss: 0.0555 - val_mae: 0.2355
Epoch 101/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0283 - mae: 0.14
41 - val_loss: 0.0524 - val_mae: 0.2289
Epoch 102/250
27 - val_loss: 0.0496 - val_mae: 0.2227
Epoch 103/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0271 - mae: 0.14
12 - val_loss: 0.0472 - val_mae: 0.2172
Epoch 104/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0265 - mae: 0.13
97 - val_loss: 0.0451 - val_mae: 0.2125
Epoch 105/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0259 - mae: 0.13
82 - val_loss: 0.0435 - val_mae: 0.2085
Epoch 106/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0253 - mae: 0.13
67 - val loss: 0.0422 - val mae: 0.2054
Epoch 107/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0247 - mae: 0.13
53 - val loss: 0.0412 - val mae: 0.2030
Epoch 108/250
38 - val loss: 0.0405 - val mae: 0.2012
Epoch 109/250
23 - val loss: 0.0400 - val mae: 0.1999
Epoch 110/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0230 - mae: 0.13
08 - val loss: 0.0396 - val mae: 0.1989
Epoch 111/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0225 - mae: 0.12
93 - val loss: 0.0392 - val mae: 0.1980
Epoch 112/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0219 - mae: 0.12
```

```
77 - val_loss: 0.0389 - val_mae: 0.1972
Epoch 113/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0213 - mae: 0.12
62 - val_loss: 0.0385 - val_mae: 0.1962
Epoch 114/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0208 - mae: 0.12
46 - val_loss: 0.0380 - val_mae: 0.1950
Epoch 115/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0203 - mae: 0.12
30 - val_loss: 0.0374 - val_mae: 0.1934
Epoch 116/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0198 - mae: 0.12
14 - val_loss: 0.0366 - val_mae: 0.1914
Epoch 117/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0193 - mae: 0.11
97 - val_loss: 0.0357 - val_mae: 0.1890
Epoch 118/250
1/1 [===========] - 0s 31ms/step - loss: 0.0188 - mae: 0.11
81 - val_loss: 0.0346 - val_mae: 0.1861
Epoch 119/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0183 - mae: 0.11
64 - val_loss: 0.0335 - val_mae: 0.1829
Epoch 120/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0178 - mae: 0.11
48 - val_loss: 0.0322 - val_mae: 0.1793
Epoch 121/250
33 - val_loss: 0.0308 - val_mae: 0.1755
Epoch 122/250
19 - val_loss: 0.0294 - val_mae: 0.1714
Epoch 123/250
05 - val_loss: 0.0279 - val_mae: 0.1671
Epoch 124/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0160 - mae: 0.10
90 - val_loss: 0.0265 - val_mae: 0.1628
Epoch 125/250
77 - val_loss: 0.0251 - val_mae: 0.1584
Epoch 126/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0152 - mae: 0.10
65 - val_loss: 0.0237 - val_mae: 0.1540
Epoch 127/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0148 - mae: 0.10
52 - val_loss: 0.0224 - val_mae: 0.1496
Epoch 128/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0144 - mae: 0.10
38 - val_loss: 0.0211 - val_mae: 0.1452
Epoch 129/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0140 - mae: 0.10
25 - val loss: 0.0198 - val mae: 0.1409
Epoch 130/250
1/1 [===========] - 0s 30ms/step - loss: 0.0136 - mae: 0.10
12 - val loss: 0.0186 - val mae: 0.1365
Epoch 131/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0132 - mae: 0.09
99 - val loss: 0.0175 - val mae: 0.1322
Epoch 132/250
85 - val loss: 0.0163 - val mae: 0.1278
Epoch 133/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0125 - mae: 0.09
72 - val loss: 0.0152 - val mae: 0.1235
Epoch 134/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0122 - mae: 0.09
59 - val loss: 0.0142 - val mae: 0.1191
Epoch 135/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0119 - mae: 0.09
```

```
46 - val_loss: 0.0131 - val_mae: 0.1146
Epoch 136/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0116 - mae: 0.09
33 - val_loss: 0.0121 - val_mae: 0.1101
Epoch 137/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0113 - mae: 0.09
21 - val_loss: 0.0111 - val_mae: 0.1055
Epoch 138/250
08 - val_loss: 0.0102 - val_mae: 0.1009
Epoch 139/250
1/1 [=========== ] - 0s 32ms/step - loss: 0.0107 - mae: 0.08
96 - val_loss: 0.0093 - val_mae: 0.0963
Epoch 140/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0104 - mae: 0.08
85 - val_loss: 0.0084 - val_mae: 0.0916
Epoch 141/250
1/1 [=========== ] - 0s 34ms/step - loss: 0.0101 - mae: 0.08
75 - val_loss: 0.0075 - val_mae: 0.0869
Epoch 142/250
65 - val_loss: 0.0067 - val_mae: 0.0821
Epoch 143/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0096 - mae: 0.08
54 - val_loss: 0.0060 - val_mae: 0.0773
Epoch 144/250
44 - val_loss: 0.0052 - val_mae: 0.0724
Epoch 145/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0091 - mae: 0.08
34 - val_loss: 0.0046 - val_mae: 0.0675
Epoch 146/250
24 - val_loss: 0.0039 - val_mae: 0.0625
Epoch 147/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0087 - mae: 0.08
13 - val_loss: 0.0033 - val_mae: 0.0574
Epoch 148/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0084 - mae: 0.08
03 - val_loss: 0.0027 - val_mae: 0.0522
Epoch 149/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0082 - mae: 0.07
93 - val_loss: 0.0022 - val_mae: 0.0470
Epoch 150/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0080 - mae: 0.07
83 - val_loss: 0.0017 - val_mae: 0.0417
Epoch 151/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0078 - mae: 0.07
73 - val_loss: 0.0013 - val_mae: 0.0362
Epoch 152/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0077 - mae: 0.07
64 - val loss: 9.4731e-04 - val mae: 0.0308
Epoch 153/250
54 - val loss: 6.3825e-04 - val mae: 0.0253
Epoch 154/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0073 - mae: 0.07
45 - val loss: 3.8913e-04 - val mae: 0.0197
Epoch 155/250
36 - val loss: 2.0135e-04 - val mae: 0.0142
Epoch 156/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0070 - mae: 0.07
27 - val_loss: 7.5315e-05 - val_mae: 0.0087
Epoch 157/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0068 - mae: 0.07
18 - val loss: 1.0346e-05 - val mae: 0.0032
Epoch 158/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0067 - mae: 0.07
```

```
09 - val_loss: 4.7476e-06 - val_mae: 0.0022
Epoch 159/250
01 - val_loss: 5.6152e-05 - val_mae: 0.0075
Epoch 160/250
1/1 [===========] - 0s 31ms/step - loss: 0.0064 - mae: 0.06
92 - val_loss: 1.6181e-04 - val_mae: 0.0127
Epoch 161/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0063 - mae: 0.06
84 - val_loss: 3.1895e-04 - val_mae: 0.0179
Epoch 162/250
1/1 [=========== ] - 0s 32ms/step - loss: 0.0061 - mae: 0.06
76 - val_loss: 5.2521e-04 - val_mae: 0.0229
Epoch 163/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0060 - mae: 0.06
68 - val_loss: 7.7886e-04 - val_mae: 0.0279
Epoch 164/250
1/1 [=========== ] - 0s 32ms/step - loss: 0.0059 - mae: 0.06
60 - val_loss: 0.0011 - val_mae: 0.0328
Epoch 165/250
53 - val_loss: 0.0014 - val_mae: 0.0378
Epoch 166/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0056 - mae: 0.06
47 - val_loss: 0.0018 - val_mae: 0.0427
Epoch 167/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0055 - mae: 0.06
41 - val_loss: 0.0023 - val_mae: 0.0476
Epoch 168/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0054 - mae: 0.06
36 - val_loss: 0.0028 - val_mae: 0.0525
Epoch 169/250
30 - val_loss: 0.0033 - val_mae: 0.0574
Epoch 170/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0052 - mae: 0.06
25 - val_loss: 0.0039 - val_mae: 0.0624
Epoch 171/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0051 - mae: 0.06
19 - val_loss: 0.0045 - val_mae: 0.0674
Epoch 172/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0050 - mae: 0.06
13 - val_loss: 0.0052 - val_mae: 0.0724
Epoch 173/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0049 - mae: 0.06
08 - val_loss: 0.0060 - val_mae: 0.0773
Epoch 174/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0048 - mae: 0.06
02 - val_loss: 0.0068 - val_mae: 0.0823
Epoch 175/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0048 - mae: 0.05
97 - val loss: 0.0076 - val mae: 0.0872
Epoch 176/250
1/1 [===========] - 0s 30ms/step - loss: 0.0047 - mae: 0.05
92 - val loss: 0.0085 - val mae: 0.0921
Epoch 177/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0046 - mae: 0.05
86 - val loss: 0.0094 - val mae: 0.0969
Epoch 178/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0045 - mae: 0.05
81 - val loss: 0.0103 - val mae: 0.1016
Epoch 179/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0044 - mae: 0.05
75 - val loss: 0.0113 - val mae: 0.1063
Epoch 180/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0043 - mae: 0.05
70 - val loss: 0.0123 - val mae: 0.1109
Epoch 181/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0043 - mae: 0.05
```

```
65 - val_loss: 0.0133 - val_mae: 0.1154
Epoch 182/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0042 - mae: 0.05
59 - val_loss: 0.0144 - val_mae: 0.1199
Epoch 183/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0041 - mae: 0.05
54 - val_loss: 0.0155 - val_mae: 0.1244
Epoch 184/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0041 - mae: 0.05
49 - val_loss: 0.0166 - val_mae: 0.1288
Epoch 185/250
1/1 [=========== ] - 0s 31ms/step - loss: 0.0040 - mae: 0.05
44 - val_loss: 0.0177 - val_mae: 0.1332
Epoch 186/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0039 - mae: 0.05
39 - val_loss: 0.0189 - val_mae: 0.1376
Epoch 187/250
1/1 [=========== ] - 0s 30ms/step - loss: 0.0039 - mae: 0.05
34 - val_loss: 0.0202 - val_mae: 0.1420
Epoch 188/250
29 - val_loss: 0.0214 - val_mae: 0.1463
Epoch 189/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0037 - mae: 0.05
24 - val_loss: 0.0227 - val_mae: 0.1507
Epoch 190/250
19 - val_loss: 0.0240 - val_mae: 0.1550
Epoch 191/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0036 - mae: 0.05
15 - val_loss: 0.0254 - val_mae: 0.1593
Epoch 192/250
10 - val_loss: 0.0267 - val_mae: 0.1635
Epoch 193/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0035 - mae: 0.05
05 - val_loss: 0.0281 - val_mae: 0.1677
Epoch 194/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0034 - mae: 0.05
00 - val_loss: 0.0296 - val_mae: 0.1719
Epoch 195/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0034 - mae: 0.04
96 - val_loss: 0.0310 - val_mae: 0.1760
Epoch 196/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0033 - mae: 0.04
91 - val_loss: 0.0325 - val_mae: 0.1802
Epoch 197/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0033 - mae: 0.04
86 - val_loss: 0.0339 - val_mae: 0.1842
Epoch 198/250
1/1 [============] - 0s 29ms/step - loss: 0.0032 - mae: 0.04
82 - val loss: 0.0354 - val mae: 0.1883
Epoch 199/250
1/1 [===========] - 0s 30ms/step - loss: 0.0032 - mae: 0.04
77 - val loss: 0.0370 - val mae: 0.1923
Epoch 200/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0031 - mae: 0.04
73 - val loss: 0.0385 - val mae: 0.1963
Epoch 201/250
68 - val loss: 0.0401 - val mae: 0.2002
Epoch 202/250
1/1 [============] - 0s 31ms/step - loss: 0.0030 - mae: 0.04
64 - val loss: 0.0417 - val mae: 0.2041
Epoch 203/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0029 - mae: 0.04
60 - val loss: 0.0433 - val mae: 0.2081
Epoch 204/250
1/1 [=============== ] - 0s 32ms/step - loss: 0.0029 - mae: 0.04
```

```
55 - val_loss: 0.0449 - val_mae: 0.2119
Epoch 205/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0029 - mae: 0.04
51 - val_loss: 0.0466 - val_mae: 0.2158
Epoch 206/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0028 - mae: 0.04
47 - val_loss: 0.0482 - val_mae: 0.2196
Epoch 207/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0028 - mae: 0.04
43 - val_loss: 0.0499 - val_mae: 0.2234
Epoch 208/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0027 - mae: 0.04
38 - val_loss: 0.0516 - val_mae: 0.2272
Epoch 209/250
34 - val_loss: 0.0533 - val_mae: 0.2309
Epoch 210/250
1/1 [===========] - 0s 32ms/step - loss: 0.0026 - mae: 0.04
30 - val_loss: 0.0551 - val_mae: 0.2347
Epoch 211/250
26 - val_loss: 0.0568 - val_mae: 0.2384
Epoch 212/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0025 - mae: 0.04
22 - val_loss: 0.0586 - val_mae: 0.2420
Epoch 213/250
18 - val_loss: 0.0604 - val_mae: 0.2457
Epoch 214/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0025 - mae: 0.04
14 - val_loss: 0.0621 - val_mae: 0.2493
Epoch 215/250
10 - val_loss: 0.0640 - val_mae: 0.2529
Epoch 216/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0024 - mae: 0.04
06 - val_loss: 0.0658 - val_mae: 0.2565
Epoch 217/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0023 - mae: 0.04
02 - val_loss: 0.0676 - val_mae: 0.2601
Epoch 218/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0023 - mae: 0.03
98 - val_loss: 0.0695 - val_mae: 0.2636
Epoch 219/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0023 - mae: 0.03
94 - val_loss: 0.0714 - val_mae: 0.2672
Epoch 220/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0022 - mae: 0.03
91 - val_loss: 0.0733 - val_mae: 0.2707
Epoch 221/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0022 - mae: 0.03
87 - val loss: 0.0752 - val mae: 0.2742
Epoch 222/250
1/1 [===========] - 0s 30ms/step - loss: 0.0022 - mae: 0.03
83 - val loss: 0.0771 - val mae: 0.2776
Epoch 223/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0021 - mae: 0.03
79 - val loss: 0.0790 - val mae: 0.2811
Epoch 224/250
76 - val loss: 0.0810 - val mae: 0.2845
Epoch 225/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0020 - mae: 0.03
72 - val loss: 0.0829 - val mae: 0.2880
Epoch 226/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0020 - mae: 0.03
69 - val loss: 0.0849 - val mae: 0.2914
Epoch 227/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0020 - mae: 0.03
```

```
65 - val_loss: 0.0869 - val_mae: 0.2947
Epoch 228/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0019 - mae: 0.03
61 - val_loss: 0.0889 - val_mae: 0.2981
Epoch 229/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0019 - mae: 0.03
58 - val_loss: 0.0909 - val_mae: 0.3015
Epoch 230/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0019 - mae: 0.03
54 - val_loss: 0.0929 - val_mae: 0.3048
Epoch 231/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0019 - mae: 0.03
51 - val_loss: 0.0949 - val_mae: 0.3081
Epoch 232/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0018 - mae: 0.03
48 - val_loss: 0.0970 - val_mae: 0.3114
Epoch 233/250
1/1 [===========] - 0s 32ms/step - loss: 0.0018 - mae: 0.03
44 - val_loss: 0.0991 - val_mae: 0.3147
Epoch 234/250
41 - val_loss: 0.1011 - val_mae: 0.3180
Epoch 235/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0017 - mae: 0.03
37 - val_loss: 0.1032 - val_mae: 0.3213
Epoch 236/250
34 - val_loss: 0.1053 - val_mae: 0.3245
Epoch 237/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0017 - mae: 0.03
31 - val_loss: 0.1074 - val_mae: 0.3278
Epoch 238/250
28 - val_loss: 0.1095 - val_mae: 0.3310
Epoch 239/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0016 - mae: 0.03
24 - val_loss: 0.1117 - val_mae: 0.3342
Epoch 240/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0016 - mae: 0.03
21 - val_loss: 0.1138 - val_mae: 0.3374
Epoch 241/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0016 - mae: 0.03
18 - val_loss: 0.1160 - val_mae: 0.3405
Epoch 242/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0015 - mae: 0.03
15 - val_loss: 0.1181 - val_mae: 0.3437
Epoch 243/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0015 - mae: 0.03
12 - val_loss: 0.1203 - val_mae: 0.3468
Epoch 244/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0015 - mae: 0.03
08 - val loss: 0.1225 - val mae: 0.3500
Epoch 245/250
1/1 [===========] - 0s 31ms/step - loss: 0.0015 - mae: 0.03
05 - val loss: 0.1247 - val mae: 0.3531
Epoch 246/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0014 - mae: 0.03
02 - val loss: 0.1269 - val mae: 0.3562
Epoch 247/250
00 - val loss: 0.1291 - val mae: 0.3593
Epoch 248/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0014 - mae: 0.02
97 - val_loss: 0.1313 - val_mae: 0.3623
Epoch 249/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0014 - mae: 0.02
94 - val loss: 0.1335 - val mae: 0.3654
Epoch 250/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0013 - mae: 0.02
```

```
91 - val_loss: 0.1357 - val_mae: 0.3684
Epoch 1/250
2101 - val_loss: 26.1585 - val_mae: 5.1145
Epoch 2/250
155 - val_loss: 25.8272 - val_mae: 5.0820
Epoch 3/250
13 - val_loss: 25.3844 - val_mae: 5.0383
Epoch 4/250
87 - val_loss: 24.7601 - val_mae: 4.9760
Epoch 5/250
10 - val_loss: 23.8635 - val_mae: 4.8850
Epoch 6/250
1/1 [============= ] - 0s 29ms/step - loss: 7.2699 - mae: 2.28
93 - val_loss: 22.5937 - val_mae: 4.7533
Epoch 7/250
54 - val_loss: 20.8677 - val_mae: 4.5681
Epoch 8/250
83 - val_loss: 18.6470 - val_mae: 4.3182
Epoch 9/250
65 - val_loss: 16.2263 - val_mae: 4.0282
Epoch 10/250
1/1 [============== ] - 0s 29ms/step - loss: 4.4612 - mae: 1.65
73 - val_loss: 13.8012 - val_mae: 3.7150
Epoch 11/250
1/1 [============== ] - 0s 30ms/step - loss: 3.7803 - mae: 1.50
03 - val_loss: 11.4242 - val_mae: 3.3800
Epoch 12/250
1/1 [============== ] - 0s 32ms/step - loss: 3.1153 - mae: 1.33
50 - val_loss: 9.1490 - val_mae: 3.0247
Epoch 13/250
85 - val_loss: 7.0345 - val_mae: 2.6523
Epoch 14/250
1/1 [============= ] - 0s 29ms/step - loss: 1.9463 - mae: 1.00
12 - val_loss: 5.1606 - val_mae: 2.2717
Epoch 15/250
1/1 [============== ] - 0s 30ms/step - loss: 1.4873 - mae: 0.86
30 - val_loss: 3.5999 - val_mae: 1.8973
Epoch 16/250
28 - val_loss: 2.3780 - val_mae: 1.5421
Epoch 17/250
1/1 [============= ] - 0s 29ms/step - loss: 0.8727 - mae: 0.64
75 - val loss: 1.4918 - val mae: 1.2214
Epoch 18/250
1/1 [===========] - 0s 30ms/step - loss: 0.7202 - mae: 0.63
39 - val loss: 0.9068 - val mae: 0.9523
Epoch 19/250
1/1 [============ ] - 0s 31ms/step - loss: 0.6600 - mae: 0.63
90 - val loss: 0.5580 - val mae: 0.7470
Epoch 20/250
36 - val loss: 0.3700 - val mae: 0.6083
Epoch 21/250
1/1 [============ ] - 0s 29ms/step - loss: 0.7070 - mae: 0.66
02 - val_loss: 0.2811 - val_mae: 0.5302
Epoch 22/250
1/1 [============== ] - 0s 29ms/step - loss: 0.7423 - mae: 0.65
66 - val loss: 0.2519 - val mae: 0.5019
Epoch 23/250
1/1 [============== ] - 0s 29ms/step - loss: 0.7429 - mae: 0.64
```

```
34 - val_loss: 0.2602 - val_mae: 0.5101
Epoch 24/250
10 - val_loss: 0.2946 - val_mae: 0.5428
Epoch 25/250
1/1 [============ ] - 0s 30ms/step - loss: 0.6139 - mae: 0.59
15 - val_loss: 0.3487 - val_mae: 0.5905
Epoch 26/250
61 - val_loss: 0.4222 - val_mae: 0.6498
Epoch 27/250
1/1 [============ ] - 0s 30ms/step - loss: 0.4015 - mae: 0.48
97 - val_loss: 0.5252 - val_mae: 0.7247
Epoch 28/250
71 - val_loss: 0.6568 - val_mae: 0.8104
Epoch 29/250
1/1 [============ ] - 0s 29ms/step - loss: 0.2211 - mae: 0.36
33 - val_loss: 0.8133 - val_mae: 0.9018
Epoch 30/250
47 - val_loss: 0.9883 - val_mae: 0.9941
Epoch 31/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1211 - mae: 0.28
33 - val_loss: 1.1729 - val_mae: 1.0830
Epoch 32/250
46 - val_loss: 1.3564 - val_mae: 1.1646
Epoch 33/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1087 - mae: 0.25
30 - val_loss: 1.5301 - val_mae: 1.2370
Epoch 34/250
47 - val_loss: 1.6859 - val_mae: 1.2984
Epoch 35/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1419 - mae: 0.27
92 - val_loss: 1.8165 - val_mae: 1.3478
Epoch 36/250
03 - val_loss: 1.9155 - val_mae: 1.3840
Epoch 37/250
1/1 [============== ] - 0s 29ms/step - loss: 0.1594 - mae: 0.28
98 - val_loss: 1.9783 - val_mae: 1.4065
Epoch 38/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1597 - mae: 0.28
27 - val_loss: 2.0021 - val_mae: 1.4150
Epoch 39/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1563 - mae: 0.28
47 - val_loss: 1.9865 - val_mae: 1.4094
Epoch 40/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1493 - mae: 0.28
60 - val loss: 1.9332 - val mae: 1.3904
Epoch 41/250
1/1 [===========] - 0s 29ms/step - loss: 0.1383 - mae: 0.28
19 - val loss: 1.8470 - val mae: 1.3590
Epoch 42/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1243 - mae: 0.27
28 - val loss: 1.7351 - val mae: 1.3172
Epoch 43/250
26 - val loss: 1.6071 - val mae: 1.2677
Epoch 44/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0981 - mae: 0.25
14 - val loss: 1.4739 - val mae: 1.2140
Epoch 45/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0904 - mae: 0.23
80 - val loss: 1.3462 - val mae: 1.1603
Epoch 46/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0861 - mae: 0.23
```

```
00 - val_loss: 1.2335 - val_mae: 1.1106
Epoch 47/250
63 - val_loss: 1.1423 - val_mae: 1.0688
Epoch 48/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0809 - mae: 0.22
72 - val_loss: 1.0759 - val_mae: 1.0373
Epoch 49/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0783 - mae: 0.22
55 - val_loss: 1.0341 - val_mae: 1.0169
Epoch 50/250
56 - val_loss: 1.0141 - val_mae: 1.0070
Epoch 51/250
34 - val_loss: 1.0118 - val_mae: 1.0059
Epoch 52/250
1/1 [===========] - 0s 32ms/step - loss: 0.0691 - mae: 0.21
96 - val_loss: 1.0223 - val_mae: 1.0111
Epoch 53/250
55 - val_loss: 1.0409 - val_mae: 1.0203
Epoch 54/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0589 - mae: 0.20
85 - val_loss: 1.0638 - val_mae: 1.0314
Epoch 55/250
1/1 [============] - 0s 30ms/step - loss: 0.0538 - mae: 0.20
02 - val_loss: 1.0885 - val_mae: 1.0433
Epoch 56/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0496 - mae: 0.19
04 - val_loss: 1.1135 - val_mae: 1.0552
Epoch 57/250
14 - val_loss: 1.1382 - val_mae: 1.0668
Epoch 58/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0440 - mae: 0.17
43 - val_loss: 1.1625 - val_mae: 1.0782
Epoch 59/250
94 - val_loss: 1.1863 - val_mae: 1.0892
Epoch 60/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0400 - mae: 0.16
79 - val_loss: 1.2096 - val_mae: 1.0998
Epoch 61/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0387 - mae: 0.16
70 - val_loss: 1.2320 - val_mae: 1.1100
Epoch 62/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0377 - mae: 0.16
55 - val_loss: 1.2534 - val_mae: 1.1196
Epoch 63/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0369 - mae: 0.16
28 - val loss: 1.2737 - val mae: 1.1286
Epoch 64/250
1/1 [===========] - 0s 30ms/step - loss: 0.0359 - mae: 0.15
89 - val loss: 1.2929 - val mae: 1.1371
Epoch 65/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0346 - mae: 0.15
38 - val loss: 1.3113 - val mae: 1.1451
Epoch 66/250
79 - val loss: 1.3287 - val mae: 1.1527
Epoch 67/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0318 - mae: 0.14
17 - val loss: 1.3447 - val mae: 1.1596
Epoch 68/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0306 - mae: 0.13
58 - val loss: 1.3586 - val mae: 1.1656
Epoch 69/250
1/1 [=============== ] - 0s 29ms/step - loss: 0.0295 - mae: 0.13
```

```
14 - val_loss: 1.3690 - val_mae: 1.1700
Epoch 70/250
73 - val_loss: 1.3746 - val_mae: 1.1724
Epoch 71/250
36 - val_loss: 1.3743 - val_mae: 1.1723
Epoch 72/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0262 - mae: 0.12
07 - val_loss: 1.3679 - val_mae: 1.1696
Epoch 73/250
77 - val_loss: 1.3558 - val_mae: 1.1644
Epoch 74/250
52 - val_loss: 1.3395 - val_mae: 1.1574
Epoch 75/250
26 - val_loss: 1.3215 - val_mae: 1.1495
Epoch 76/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0226 - mae: 0.11
00 - val_loss: 1.3041 - val_mae: 1.1420
Epoch 77/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0217 - mae: 0.10
74 - val_loss: 1.2899 - val_mae: 1.1358
Epoch 78/250
64 - val_loss: 1.2806 - val_mae: 1.1316
Epoch 79/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0200 - mae: 0.10
53 - val_loss: 1.2768 - val_mae: 1.1300
Epoch 80/250
34 - val_loss: 1.2781 - val_mae: 1.1305
Epoch 81/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0184 - mae: 0.10
08 - val_loss: 1.2832 - val_mae: 1.1328
Epoch 82/250
76 - val_loss: 1.2904 - val_mae: 1.1359
Epoch 83/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0170 - mae: 0.09
46 - val_loss: 1.2977 - val_mae: 1.1392
Epoch 84/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0165 - mae: 0.09
27 - val_loss: 1.3041 - val_mae: 1.1420
Epoch 85/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0161 - mae: 0.09
08 - val_loss: 1.3090 - val_mae: 1.1441
Epoch 86/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0156 - mae: 0.08
92 - val loss: 1.3129 - val mae: 1.1458
Epoch 87/250
1/1 [===========] - 0s 30ms/step - loss: 0.0151 - mae: 0.08
71 - val loss: 1.3165 - val mae: 1.1474
Epoch 88/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0146 - mae: 0.08
47 - val loss: 1.3210 - val mae: 1.1494
Epoch 89/250
28 - val loss: 1.3274 - val mae: 1.1521
Epoch 90/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0137 - mae: 0.08
11 - val_loss: 1.3359 - val_mae: 1.1558
Epoch 91/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0133 - mae: 0.07
97 - val loss: 1.3465 - val mae: 1.1604
Epoch 92/250
1/1 [=============== ] - 0s 29ms/step - loss: 0.0129 - mae: 0.07
```

```
89 - val_loss: 1.3582 - val_mae: 1.1654
Epoch 93/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0125 - mae: 0.07
82 - val_loss: 1.3702 - val_mae: 1.1706
Epoch 94/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0122 - mae: 0.07
79 - val_loss: 1.3813 - val_mae: 1.1753
Epoch 95/250
74 - val_loss: 1.3907 - val_mae: 1.1793
Epoch 96/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0115 - mae: 0.07
65 - val_loss: 1.3978 - val_mae: 1.1823
Epoch 97/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0112 - mae: 0.07
55 - val_loss: 1.4027 - val_mae: 1.1843
Epoch 98/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0109 - mae: 0.07
45 - val_loss: 1.4056 - val_mae: 1.1856
Epoch 99/250
33 - val_loss: 1.4070 - val_mae: 1.1862
Epoch 100/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0103 - mae: 0.07
23 - val_loss: 1.4075 - val_mae: 1.1864
Epoch 101/250
14 - val_loss: 1.4077 - val_mae: 1.1864
Epoch 102/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0097 - mae: 0.07
03 - val_loss: 1.4079 - val_mae: 1.1865
Epoch 103/250
91 - val_loss: 1.4085 - val_mae: 1.1868
Epoch 104/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0093 - mae: 0.06
78 - val_loss: 1.4098 - val_mae: 1.1874
Epoch 105/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0090 - mae: 0.06
66 - val_loss: 1.4120 - val_mae: 1.1883
Epoch 106/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0088 - mae: 0.06
52 - val_loss: 1.4152 - val_mae: 1.1896
Epoch 107/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0086 - mae: 0.06
41 - val_loss: 1.4193 - val_mae: 1.1913
Epoch 108/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0084 - mae: 0.06
30 - val_loss: 1.4240 - val_mae: 1.1933
Epoch 109/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0083 - mae: 0.06
20 - val loss: 1.4292 - val mae: 1.1955
Epoch 110/250
1/1 [===========] - 0s 31ms/step - loss: 0.0081 - mae: 0.06
12 - val loss: 1.4343 - val mae: 1.1976
Epoch 111/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0079 - mae: 0.06
04 - val loss: 1.4391 - val mae: 1.1996
Epoch 112/250
98 - val loss: 1.4432 - val mae: 1.2013
Epoch 113/250
1/1 [============] - 0s 31ms/step - loss: 0.0076 - mae: 0.05
97 - val loss: 1.4467 - val mae: 1.2028
Epoch 114/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0075 - mae: 0.05
95 - val loss: 1.4496 - val mae: 1.2040
Epoch 115/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0073 - mae: 0.05
```

```
94 - val_loss: 1.4523 - val_mae: 1.2051
Epoch 116/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0072 - mae: 0.05
92 - val_loss: 1.4551 - val_mae: 1.2063
Epoch 117/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0070 - mae: 0.05
90 - val_loss: 1.4584 - val_mae: 1.2077
Epoch 118/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0069 - mae: 0.05
89 - val_loss: 1.4624 - val_mae: 1.2093
Epoch 119/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0068 - mae: 0.05
87 - val_loss: 1.4671 - val_mae: 1.2113
Epoch 120/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0067 - mae: 0.05
84 - val_loss: 1.4723 - val_mae: 1.2134
Epoch 121/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0065 - mae: 0.05
80 - val_loss: 1.4776 - val_mae: 1.2156
Epoch 122/250
75 - val_loss: 1.4828 - val_mae: 1.2177
Epoch 123/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0063 - mae: 0.05
69 - val_loss: 1.4876 - val_mae: 1.2197
Epoch 124/250
63 - val_loss: 1.4919 - val_mae: 1.2214
Epoch 125/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0061 - mae: 0.05
56 - val_loss: 1.4956 - val_mae: 1.2230
Epoch 126/250
48 - val_loss: 1.4991 - val_mae: 1.2244
Epoch 127/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0058 - mae: 0.05
40 - val_loss: 1.5023 - val_mae: 1.2257
Epoch 128/250
33 - val_loss: 1.5056 - val_mae: 1.2270
Epoch 129/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0056 - mae: 0.05
27 - val_loss: 1.5091 - val_mae: 1.2284
Epoch 130/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0055 - mae: 0.05
21 - val_loss: 1.5127 - val_mae: 1.2299
Epoch 131/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0054 - mae: 0.05
16 - val_loss: 1.5164 - val_mae: 1.2314
Epoch 132/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0053 - mae: 0.05
12 - val loss: 1.5203 - val mae: 1.2330
Epoch 133/250
1/1 [===========] - 0s 29ms/step - loss: 0.0052 - mae: 0.05
08 - val loss: 1.5241 - val mae: 1.2345
Epoch 134/250
05 - val loss: 1.5279 - val mae: 1.2361
Epoch 135/250
01 - val_loss: 1.5315 - val_mae: 1.2375
Epoch 136/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0050 - mae: 0.04
97 - val loss: 1.5350 - val mae: 1.2390
Epoch 137/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0049 - mae: 0.04
94 - val loss: 1.5384 - val mae: 1.2403
Epoch 138/250
1/1 [=============== ] - 0s 29ms/step - loss: 0.0048 - mae: 0.04
```

```
90 - val_loss: 1.5417 - val_mae: 1.2416
Epoch 139/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0047 - mae: 0.04
85 - val_loss: 1.5448 - val_mae: 1.2429
Epoch 140/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0046 - mae: 0.04
81 - val_loss: 1.5479 - val_mae: 1.2441
Epoch 141/250
76 - val_loss: 1.5509 - val_mae: 1.2454
Epoch 142/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0044 - mae: 0.04
71 - val_loss: 1.5540 - val_mae: 1.2466
Epoch 143/250
66 - val_loss: 1.5572 - val_mae: 1.2479
Epoch 144/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0043 - mae: 0.04
61 - val_loss: 1.5604 - val_mae: 1.2492
Epoch 145/250
56 - val_loss: 1.5638 - val_mae: 1.2505
Epoch 146/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0041 - mae: 0.04
50 - val_loss: 1.5671 - val_mae: 1.2519
Epoch 147/250
45 - val_loss: 1.5704 - val_mae: 1.2532
Epoch 148/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0040 - mae: 0.04
40 - val_loss: 1.5736 - val_mae: 1.2544
Epoch 149/250
36 - val_loss: 1.5765 - val_mae: 1.2556
Epoch 150/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0039 - mae: 0.04
31 - val_loss: 1.5791 - val_mae: 1.2566
Epoch 151/250
26 - val_loss: 1.5815 - val_mae: 1.2576
Epoch 152/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0037 - mae: 0.04
22 - val_loss: 1.5838 - val_mae: 1.2585
Epoch 153/250
1/1 [============== ] - 0s 28ms/step - loss: 0.0037 - mae: 0.04
17 - val_loss: 1.5860 - val_mae: 1.2594
Epoch 154/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0036 - mae: 0.04
13 - val_loss: 1.5881 - val_mae: 1.2602
Epoch 155/250
1/1 [============= ] - 0s 28ms/step - loss: 0.0035 - mae: 0.04
09 - val loss: 1.5903 - val mae: 1.2611
Epoch 156/250
1/1 [===========] - 0s 30ms/step - loss: 0.0035 - mae: 0.04
06 - val loss: 1.5924 - val mae: 1.2619
Epoch 157/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0034 - mae: 0.04
03 - val loss: 1.5945 - val mae: 1.2627
Epoch 158/250
99 - val loss: 1.5965 - val mae: 1.2635
Epoch 159/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0033 - mae: 0.03
96 - val loss: 1.5983 - val mae: 1.2642
Epoch 160/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0032 - mae: 0.03
93 - val loss: 1.6000 - val mae: 1.2649
Epoch 161/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0032 - mae: 0.03
```

```
90 - val_loss: 1.6015 - val_mae: 1.2655
Epoch 162/250
1/1 [============= ] - 0s 28ms/step - loss: 0.0031 - mae: 0.03
87 - val_loss: 1.6029 - val_mae: 1.2661
Epoch 163/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0031 - mae: 0.03
83 - val_loss: 1.6042 - val_mae: 1.2666
Epoch 164/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0030 - mae: 0.03
80 - val_loss: 1.6055 - val_mae: 1.2671
Epoch 165/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0030 - mae: 0.03
77 - val_loss: 1.6067 - val_mae: 1.2676
Epoch 166/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0029 - mae: 0.03
74 - val_loss: 1.6080 - val_mae: 1.2681
Epoch 167/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0029 - mae: 0.03
71 - val_loss: 1.6092 - val_mae: 1.2686
Epoch 168/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0028 - mae: 0.03
68 - val_loss: 1.6105 - val_mae: 1.2691
Epoch 169/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0028 - mae: 0.03
64 - val_loss: 1.6118 - val_mae: 1.2696
Epoch 170/250
61 - val_loss: 1.6131 - val_mae: 1.2701
Epoch 171/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0027 - mae: 0.03
58 - val_loss: 1.6143 - val_mae: 1.2706
Epoch 172/250
55 - val_loss: 1.6155 - val_mae: 1.2710
Epoch 173/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0026 - mae: 0.03
52 - val_loss: 1.6166 - val_mae: 1.2715
Epoch 174/250
49 - val_loss: 1.6176 - val_mae: 1.2719
Epoch 175/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0025 - mae: 0.03
47 - val_loss: 1.6186 - val_mae: 1.2722
Epoch 176/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0025 - mae: 0.03
44 - val_loss: 1.6194 - val_mae: 1.2726
Epoch 177/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0024 - mae: 0.03
41 - val_loss: 1.6202 - val_mae: 1.2729
Epoch 178/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0024 - mae: 0.03
39 - val loss: 1.6210 - val mae: 1.2732
Epoch 179/250
1/1 [===========] - 0s 29ms/step - loss: 0.0023 - mae: 0.03
36 - val loss: 1.6218 - val mae: 1.2735
Epoch 180/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0023 - mae: 0.03
33 - val loss: 1.6225 - val mae: 1.2738
Epoch 181/250
31 - val loss: 1.6232 - val mae: 1.2741
Epoch 182/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0022 - mae: 0.03
28 - val_loss: 1.6239 - val_mae: 1.2743
Epoch 183/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0022 - mae: 0.03
25 - val loss: 1.6245 - val mae: 1.2746
Epoch 184/250
1/1 [=============== ] - 0s 29ms/step - loss: 0.0021 - mae: 0.03
```

```
23 - val_loss: 1.6250 - val_mae: 1.2748
Epoch 185/250
1/1 [============= ] - 0s 28ms/step - loss: 0.0021 - mae: 0.03
20 - val_loss: 1.6255 - val_mae: 1.2750
Epoch 186/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0021 - mae: 0.03
18 - val_loss: 1.6260 - val_mae: 1.2751
Epoch 187/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0020 - mae: 0.03
15 - val_loss: 1.6264 - val_mae: 1.2753
Epoch 188/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0020 - mae: 0.03
13 - val_loss: 1.6268 - val_mae: 1.2755
Epoch 189/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0020 - mae: 0.03
11 - val_loss: 1.6272 - val_mae: 1.2756
Epoch 190/250
1/1 [=========== ] - 0s 30ms/step - loss: 0.0019 - mae: 0.03
08 - val_loss: 1.6276 - val_mae: 1.2758
Epoch 191/250
06 - val_loss: 1.6281 - val_mae: 1.2760
Epoch 192/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0019 - mae: 0.03
04 - val_loss: 1.6285 - val_mae: 1.2761
Epoch 193/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0018 - mae: 0.03
02 - val_loss: 1.6289 - val_mae: 1.2763
Epoch 194/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0018 - mae: 0.03
00 - val_loss: 1.6293 - val_mae: 1.2764
Epoch 195/250
97 - val_loss: 1.6296 - val_mae: 1.2766
Epoch 196/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0017 - mae: 0.02
95 - val_loss: 1.6300 - val_mae: 1.2767
Epoch 197/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0017 - mae: 0.02
93 - val_loss: 1.6303 - val_mae: 1.2768
Epoch 198/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0017 - mae: 0.02
91 - val_loss: 1.6306 - val_mae: 1.2769
Epoch 199/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0017 - mae: 0.02
89 - val_loss: 1.6309 - val_mae: 1.2771
Epoch 200/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0016 - mae: 0.02
87 - val_loss: 1.6311 - val_mae: 1.2771
Epoch 201/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0016 - mae: 0.02
85 - val loss: 1.6313 - val mae: 1.2772
Epoch 202/250
1/1 [===========] - 0s 29ms/step - loss: 0.0016 - mae: 0.02
82 - val loss: 1.6315 - val mae: 1.2773
Epoch 203/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0015 - mae: 0.02
80 - val loss: 1.6317 - val mae: 1.2774
Epoch 204/250
78 - val loss: 1.6319 - val mae: 1.2775
Epoch 205/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0015 - mae: 0.02
76 - val_loss: 1.6321 - val_mae: 1.2775
Epoch 206/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0015 - mae: 0.02
74 - val loss: 1.6322 - val mae: 1.2776
Epoch 207/250
1/1 [=============== ] - 0s 29ms/step - loss: 0.0014 - mae: 0.02
```

```
72 - val_loss: 1.6323 - val_mae: 1.2776
Epoch 208/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0014 - mae: 0.02
69 - val_loss: 1.6324 - val_mae: 1.2777
Epoch 209/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0014 - mae: 0.02
67 - val_loss: 1.6325 - val_mae: 1.2777
Epoch 210/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0014 - mae: 0.02
65 - val_loss: 1.6326 - val_mae: 1.2777
Epoch 211/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0014 - mae: 0.02
63 - val_loss: 1.6327 - val_mae: 1.2778
Epoch 212/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0013 - mae: 0.02
61 - val_loss: 1.6328 - val_mae: 1.2778
Epoch 213/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0013 - mae: 0.02
59 - val_loss: 1.6329 - val_mae: 1.2779
Epoch 214/250
57 - val_loss: 1.6331 - val_mae: 1.2779
Epoch 215/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0013 - mae: 0.02
55 - val_loss: 1.6332 - val_mae: 1.2780
Epoch 216/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0012 - mae: 0.02
53 - val_loss: 1.6333 - val_mae: 1.2780
Epoch 217/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0012 - mae: 0.02
50 - val_loss: 1.6333 - val_mae: 1.2780
Epoch 218/250
48 - val_loss: 1.6334 - val_mae: 1.2781
Epoch 219/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0012 - mae: 0.02
46 - val_loss: 1.6335 - val_mae: 1.2781
Epoch 220/250
44 - val_loss: 1.6335 - val_mae: 1.2781
Epoch 221/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0011 - mae: 0.02
42 - val_loss: 1.6335 - val_mae: 1.2781
Epoch 222/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0011 - mae: 0.02
40 - val_loss: 1.6336 - val_mae: 1.2781
Epoch 223/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0011 - mae: 0.02
38 - val_loss: 1.6336 - val_mae: 1.2781
Epoch 224/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0011 - mae: 0.02
36 - val loss: 1.6336 - val mae: 1.2781
Epoch 225/250
1/1 [===========] - 0s 31ms/step - loss: 0.0011 - mae: 0.02
34 - val loss: 1.6336 - val mae: 1.2781
Epoch 226/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0010 - mae: 0.02
32 - val loss: 1.6336 - val mae: 1.2781
Epoch 227/250
30 - val loss: 1.6335 - val mae: 1.2781
Epoch 228/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0010 - mae: 0.02
28 - val_loss: 1.6335 - val_mae: 1.2781
Epoch 229/250
1/1 [============== ] - 0s 29ms/step - loss: 9.9623e-04 - mae:
0.0226 - val loss: 1.6335 - val mae: 1.2781
Epoch 230/250
1/1 [=============== ] - 0s 30ms/step - loss: 9.7923e-04 - mae:
```

```
0.0224 - val_loss: 1.6334 - val_mae: 1.2780
Epoch 231/250
0.0222 - val_loss: 1.6334 - val_mae: 1.2780
Epoch 232/250
1/1 [==========] - 0s 29ms/step - loss: 9.4601e-04 - mae:
0.0220 - val_loss: 1.6333 - val_mae: 1.2780
Epoch 233/250
1/1 [===========] - 0s 30ms/step - loss: 9.2978e-04 - mae:
0.0218 - val_loss: 1.6333 - val_mae: 1.2780
Epoch 234/250
1/1 [============ ] - 0s 30ms/step - loss: 9.1381e-04 - mae:
0.0216 - val_loss: 1.6332 - val_mae: 1.2780
Epoch 235/250
1/1 [============] - 0s 30ms/step - loss: 8.9807e-04 - mae:
0.0214 - val_loss: 1.6332 - val_mae: 1.2780
Epoch 236/250
1/1 [============== ] - 0s 31ms/step - loss: 8.8259e-04 - mae:
0.0212 - val_loss: 1.6331 - val_mae: 1.2779
Epoch 237/250
1/1 [============== ] - 0s 30ms/step - loss: 8.6734e-04 - mae:
0.0210 - val_loss: 1.6331 - val_mae: 1.2779
Epoch 238/250
1/1 [============== ] - 0s 35ms/step - loss: 8.5232e-04 - mae:
0.0208 - val_loss: 1.6330 - val_mae: 1.2779
Epoch 239/250
1/1 [============== ] - 0s 37ms/step - loss: 8.3754e-04 - mae:
0.0206 - val_loss: 1.6329 - val_mae: 1.2779
Epoch 240/250
1/1 [============== ] - 0s 39ms/step - loss: 8.2298e-04 - mae:
0.0205 - val_loss: 1.6329 - val_mae: 1.2778
Epoch 241/250
1/1 [============== ] - 0s 34ms/step - loss: 8.0863e-04 - mae:
0.0203 - val_loss: 1.6328 - val_mae: 1.2778
Epoch 242/250
1/1 [============== ] - 0s 34ms/step - loss: 7.9452e-04 - mae:
0.0201 - val_loss: 1.6327 - val_mae: 1.2778
Epoch 243/250
1/1 [=========== ] - 0s 38ms/step - loss: 7.8061e-04 - mae:
0.0199 - val_loss: 1.6326 - val_mae: 1.2777
Epoch 244/250
1/1 [===========] - 0s 38ms/step - loss: 7.6693e-04 - mae:
0.0197 - val_loss: 1.6326 - val_mae: 1.2777
Epoch 245/250
1/1 [===========] - 0s 36ms/step - loss: 7.5345e-04 - mae:
0.0195 - val_loss: 1.6325 - val_mae: 1.2777
Epoch 246/250
1/1 [============== ] - 0s 34ms/step - loss: 7.4017e-04 - mae:
0.0194 - val_loss: 1.6324 - val_mae: 1.2776
Epoch 247/250
1/1 [============== ] - 0s 31ms/step - loss: 7.2710e-04 - mae:
0.0192 - val loss: 1.6323 - val mae: 1.2776
Epoch 248/250
1/1 [=========== ] - 0s 31ms/step - loss: 7.1423e-04 - mae:
0.0190 - val loss: 1.6322 - val mae: 1.2776
Epoch 249/250
1/1 [=========== ] - 0s 30ms/step - loss: 7.0155e-04 - mae:
0.0189 - val loss: 1.6321 - val mae: 1.2775
Epoch 250/250
1/1 [=========== ] - 0s 31ms/step - loss: 6.8908e-04 - mae:
0.0187 - val loss: 1.6320 - val mae: 1.2775
Epoch 1/250
5170 - val_loss: 19.6348 - val_mae: 4.4311
Epoch 2/250
1/1 [============== ] - 0s 38ms/step - loss: 11.8400 - mae: 3.3
754 - val loss: 19.0378 - val mae: 4.3632
Epoch 3/250
1/1 [=============== ] - 0s 37ms/step - loss: 10.9644 - mae: 3.2
```

```
333 - val_loss: 18.4385 - val_mae: 4.2940
Epoch 4/250
1/1 [============= ] - 0s 30ms/step - loss: 10.1224 - mae: 3.0
884 - val_loss: 17.9501 - val_mae: 4.2368
Epoch 5/250
1/1 [============] - 0s 29ms/step - loss: 9.3098 - mae: 2.93
73 - val_loss: 17.5450 - val_mae: 4.1887
Epoch 6/250
1/1 [============== ] - 0s 37ms/step - loss: 8.5157 - mae: 2.77
61 - val_loss: 17.1764 - val_mae: 4.1444
Epoch 7/250
32 - val_loss: 16.8049 - val_mae: 4.0994
Epoch 8/250
1/1 [============== ] - 0s 48ms/step - loss: 7.0114 - mae: 2.41
95 - val_loss: 16.4073 - val_mae: 4.0506
Epoch 9/250
1/1 [============== ] - 0s 45ms/step - loss: 6.3339 - mae: 2.24
84 - val_loss: 15.9640 - val_mae: 3.9955
Epoch 10/250
39 - val loss: 15.4498 - val mae: 3.9306
Epoch 11/250
1/1 [============== ] - 0s 41ms/step - loss: 5.1722 - mae: 1.95
70 - val_loss: 14.8245 - val_mae: 3.8503
Epoch 12/250
63 - val_loss: 14.0415 - val_mae: 3.7472
Epoch 13/250
1/1 [============= ] - 0s 30ms/step - loss: 4.2371 - mae: 1.73
16 - val_loss: 13.0639 - val_mae: 3.6144
Epoch 14/250
1/1 [============== ] - 0s 30ms/step - loss: 3.7967 - mae: 1.61
03 - val_loss: 11.8745 - val_mae: 3.4459
Epoch 15/250
1/1 [============== ] - 0s 30ms/step - loss: 3.3370 - mae: 1.49
80 - val_loss: 10.4746 - val_mae: 3.2364
Epoch 16/250
88 - val_loss: 8.8704 - val_mae: 2.9783
Epoch 17/250
1/1 [============= ] - 0s 32ms/step - loss: 2.3321 - mae: 1.22
23 - val_loss: 7.1067 - val_mae: 2.6658
Epoch 18/250
1/1 [============== ] - 0s 35ms/step - loss: 1.8009 - mae: 1.07
65 - val_loss: 5.4168 - val_mae: 2.3274
Epoch 19/250
1/1 [============= ] - 0s 30ms/step - loss: 1.2956 - mae: 0.93
06 - val_loss: 3.8949 - val_mae: 1.9735
Epoch 20/250
1/1 [============= ] - 0s 33ms/step - loss: 0.8770 - mae: 0.76
85 - val loss: 2.6047 - val mae: 1.6139
Epoch 21/250
1/1 [============ ] - 0s 35ms/step - loss: 0.5663 - mae: 0.62
20 - val loss: 1.5845 - val mae: 1.2588
Epoch 22/250
1/1 [============= ] - 0s 29ms/step - loss: 0.3667 - mae: 0.50
38 - val loss: 0.8414 - val mae: 0.9173
Epoch 23/250
67 - val loss: 0.3607 - val mae: 0.6006
Epoch 24/250
1/1 [============ ] - 0s 37ms/step - loss: 0.2734 - mae: 0.42
19 - val loss: 0.1034 - val mae: 0.3216
Epoch 25/250
1/1 [============== ] - 0s 34ms/step - loss: 0.3288 - mae: 0.46
05 - val loss: 0.0091 - val mae: 0.0952
Epoch 26/250
1/1 [============== ] - 0s 33ms/step - loss: 0.4058 - mae: 0.51
```

```
52 - val_loss: 0.0046 - val_mae: 0.0680
Epoch 27/250
70 - val_loss: 0.0280 - val_mae: 0.1672
Epoch 28/250
1/1 [============ ] - 0s 30ms/step - loss: 0.5071 - mae: 0.58
05 - val_loss: 0.0430 - val_mae: 0.2073
Epoch 29/250
36 - val_loss: 0.0388 - val_mae: 0.1970
Epoch 30/250
1/1 [============= ] - 0s 30ms/step - loss: 0.4673 - mae: 0.54
83 - val_loss: 0.0217 - val_mae: 0.1472
Epoch 31/250
47 - val_loss: 0.0048 - val_mae: 0.0690
Epoch 32/250
1/1 [===========] - 0s 30ms/step - loss: 0.3449 - mae: 0.46
66 - val_loss: 7.2974e-04 - val_mae: 0.0270
Epoch 33/250
67 - val_loss: 0.0173 - val_mae: 0.1317
Epoch 34/250
1/1 [============== ] - 0s 31ms/step - loss: 0.2291 - mae: 0.36
93 - val_loss: 0.0563 - val_mae: 0.2373
Epoch 35/250
92 - val_loss: 0.1142 - val_mae: 0.3379
Epoch 36/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1594 - mae: 0.29
91 - val_loss: 0.1841 - val_mae: 0.4291
Epoch 37/250
86 - val_loss: 0.2581 - val_mae: 0.5080
Epoch 38/250
1/1 [============== ] - 0s 48ms/step - loss: 0.1298 - mae: 0.27
48 - val_loss: 0.3285 - val_mae: 0.5732
Epoch 39/250
95 - val_loss: 0.3896 - val_mae: 0.6242
Epoch 40/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1197 - mae: 0.26
46 - val_loss: 0.4376 - val_mae: 0.6615
Epoch 41/250
1/1 [============== ] - 0s 32ms/step - loss: 0.1170 - mae: 0.26
39 - val_loss: 0.4711 - val_mae: 0.6864
Epoch 42/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1149 - mae: 0.26
27 - val_loss: 0.4904 - val_mae: 0.7003
Epoch 43/250
1/1 [============= ] - 0s 43ms/step - loss: 0.1130 - mae: 0.26
30 - val loss: 0.4970 - val mae: 0.7050
Epoch 44/250
1/1 [============ ] - 0s 39ms/step - loss: 0.1114 - mae: 0.26
36 - val loss: 0.4937 - val mae: 0.7026
Epoch 45/250
1/1 [============= ] - 0s 46ms/step - loss: 0.1102 - mae: 0.26
19 - val loss: 0.4832 - val mae: 0.6951
Epoch 46/250
88 - val loss: 0.4683 - val mae: 0.6843
Epoch 47/250
1/1 [============= ] - 0s 41ms/step - loss: 0.1081 - mae: 0.26
00 - val_loss: 0.4515 - val_mae: 0.6719
Epoch 48/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1064 - mae: 0.25
94 - val loss: 0.4347 - val mae: 0.6593
Epoch 49/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1039 - mae: 0.25
```

```
66 - val_loss: 0.4192 - val_mae: 0.6474
Epoch 50/250
25 - val_loss: 0.4055 - val_mae: 0.6368
Epoch 51/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0958 - mae: 0.24
57 - val_loss: 0.3938 - val_mae: 0.6275
Epoch 52/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0906 - mae: 0.23
89 - val_loss: 0.3838 - val_mae: 0.6195
Epoch 53/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0851 - mae: 0.23
36 - val_loss: 0.3747 - val_mae: 0.6121
Epoch 54/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0799 - mae: 0.22
80 - val_loss: 0.3658 - val_mae: 0.6048
Epoch 55/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0752 - mae: 0.22
17 - val_loss: 0.3563 - val_mae: 0.5969
Epoch 56/250
48 - val_loss: 0.3455 - val_mae: 0.5878
Epoch 57/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0678 - mae: 0.20
78 - val_loss: 0.3328 - val_mae: 0.5768
Epoch 58/250
10 - val_loss: 0.3180 - val_mae: 0.5639
Epoch 59/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0629 - mae: 0.19
46 - val_loss: 0.3013 - val_mae: 0.5489
Epoch 60/250
81 - val_loss: 0.2832 - val_mae: 0.5322
Epoch 61/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0595 - mae: 0.18
39 - val_loss: 0.2643 - val_mae: 0.5141
Epoch 62/250
09 - val_loss: 0.2453 - val_mae: 0.4953
Epoch 63/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0574 - mae: 0.17
89 - val_loss: 0.2272 - val_mae: 0.4766
Epoch 64/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0567 - mae: 0.17
74 - val_loss: 0.2105 - val_mae: 0.4588
Epoch 65/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0563 - mae: 0.17
59 - val_loss: 0.1960 - val_mae: 0.4427
Epoch 66/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0560 - mae: 0.17
54 - val loss: 0.1839 - val mae: 0.4289
Epoch 67/250
1/1 [============= ] - 0s 49ms/step - loss: 0.0557 - mae: 0.17
52 - val loss: 0.1745 - val mae: 0.4178
Epoch 68/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0553 - mae: 0.17
47 - val loss: 0.1678 - val mae: 0.4096
Epoch 69/250
39 - val loss: 0.1635 - val mae: 0.4044
Epoch 70/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0540 - mae: 0.17
30 - val_loss: 0.1615 - val_mae: 0.4019
Epoch 71/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0531 - mae: 0.17
17 - val loss: 0.1613 - val mae: 0.4016
Epoch 72/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0521 - mae: 0.17
```

```
08 - val_loss: 0.1625 - val_mae: 0.4032
Epoch 73/250
00 - val_loss: 0.1647 - val_mae: 0.4059
Epoch 74/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0502 - mae: 0.16
91 - val_loss: 0.1675 - val_mae: 0.4092
Epoch 75/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0493 - mae: 0.16
79 - val_loss: 0.1703 - val_mae: 0.4127
Epoch 76/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0485 - mae: 0.16
67 - val_loss: 0.1731 - val_mae: 0.4161
Epoch 77/250
57 - val_loss: 0.1756 - val_mae: 0.4190
Epoch 78/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0470 - mae: 0.16
48 - val_loss: 0.1777 - val_mae: 0.4216
Epoch 79/250
41 - val loss: 0.1796 - val mae: 0.4238
Epoch 80/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0457 - mae: 0.16
39 - val_loss: 0.1813 - val_mae: 0.4258
Epoch 81/250
38 - val_loss: 0.1831 - val_mae: 0.4279
Epoch 82/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0446 - mae: 0.16
38 - val_loss: 0.1851 - val_mae: 0.4303
Epoch 83/250
40 - val_loss: 0.1877 - val_mae: 0.4332
Epoch 84/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0436 - mae: 0.16
39 - val_loss: 0.1908 - val_mae: 0.4368
Epoch 85/250
35 - val_loss: 0.1946 - val_mae: 0.4412
Epoch 86/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0427 - mae: 0.16
28 - val_loss: 0.1991 - val_mae: 0.4462
Epoch 87/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0423 - mae: 0.16
17 - val_loss: 0.2040 - val_mae: 0.4517
Epoch 88/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0418 - mae: 0.16
04 - val_loss: 0.2092 - val_mae: 0.4574
Epoch 89/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0414 - mae: 0.15
92 - val loss: 0.2145 - val mae: 0.4631
Epoch 90/250
79 - val loss: 0.2194 - val mae: 0.4684
Epoch 91/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0404 - mae: 0.15
66 - val loss: 0.2237 - val mae: 0.4729
Epoch 92/250
52 - val loss: 0.2271 - val mae: 0.4765
Epoch 93/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0396 - mae: 0.15
39 - val loss: 0.2293 - val mae: 0.4789
Epoch 94/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0392 - mae: 0.15
27 - val loss: 0.2303 - val mae: 0.4799
Epoch 95/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0388 - mae: 0.15
```

```
17 - val_loss: 0.2301 - val_mae: 0.4797
Epoch 96/250
08 - val_loss: 0.2287 - val_mae: 0.4783
Epoch 97/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0380 - mae: 0.15
00 - val_loss: 0.2264 - val_mae: 0.4758
Epoch 98/250
93 - val_loss: 0.2233 - val_mae: 0.4725
Epoch 99/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0372 - mae: 0.14
86 - val_loss: 0.2196 - val_mae: 0.4687
Epoch 100/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0368 - mae: 0.14
80 - val_loss: 0.2158 - val_mae: 0.4645
Epoch 101/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0364 - mae: 0.14
73 - val_loss: 0.2119 - val_mae: 0.4604
Epoch 102/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0360 - mae: 0.14
66 - val_loss: 0.2083 - val_mae: 0.4564
Epoch 103/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0357 - mae: 0.14
59 - val_loss: 0.2050 - val_mae: 0.4527
Epoch 104/250
50 - val_loss: 0.2020 - val_mae: 0.4495
Epoch 105/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0349 - mae: 0.14
41 - val_loss: 0.1995 - val_mae: 0.4466
Epoch 106/250
31 - val_loss: 0.1973 - val_mae: 0.4442
Epoch 107/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0342 - mae: 0.14
20 - val_loss: 0.1956 - val_mae: 0.4422
Epoch 108/250
11 - val_loss: 0.1940 - val_mae: 0.4405
Epoch 109/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0336 - mae: 0.14
03 - val_loss: 0.1927 - val_mae: 0.4390
Epoch 110/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0332 - mae: 0.13
95 - val_loss: 0.1916 - val_mae: 0.4377
Epoch 111/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0329 - mae: 0.13
87 - val_loss: 0.1906 - val_mae: 0.4365
Epoch 112/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0326 - mae: 0.13
79 - val loss: 0.1897 - val mae: 0.4355
Epoch 113/250
1/1 [===========] - 0s 30ms/step - loss: 0.0323 - mae: 0.13
71 - val loss: 0.1889 - val mae: 0.4347
Epoch 114/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0320 - mae: 0.13
64 - val loss: 0.1884 - val mae: 0.4340
Epoch 115/250
57 - val loss: 0.1880 - val mae: 0.4336
Epoch 116/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0314 - mae: 0.13
50 - val loss: 0.1878 - val mae: 0.4334
Epoch 117/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0311 - mae: 0.13
43 - val loss: 0.1880 - val mae: 0.4336
Epoch 118/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0307 - mae: 0.13
```

```
37 - val_loss: 0.1883 - val_mae: 0.4340
Epoch 119/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0304 - mae: 0.13
30 - val_loss: 0.1890 - val_mae: 0.4347
Epoch 120/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0301 - mae: 0.13
23 - val_loss: 0.1897 - val_mae: 0.4356
Epoch 121/250
15 - val_loss: 0.1907 - val_mae: 0.4366
Epoch 122/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0296 - mae: 0.13
08 - val_loss: 0.1916 - val_mae: 0.4377
Epoch 123/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0293 - mae: 0.13
01 - val_loss: 0.1925 - val_mae: 0.4388
Epoch 124/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0290 - mae: 0.12
93 - val_loss: 0.1933 - val_mae: 0.4397
Epoch 125/250
86 - val_loss: 0.1939 - val_mae: 0.4403
Epoch 126/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0285 - mae: 0.12
79 - val_loss: 0.1942 - val_mae: 0.4407
Epoch 127/250
72 - val_loss: 0.1942 - val_mae: 0.4407
Epoch 128/250
65 - val_loss: 0.1940 - val_mae: 0.4404
Epoch 129/250
58 - val_loss: 0.1935 - val_mae: 0.4398
Epoch 130/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0274 - mae: 0.12
51 - val_loss: 0.1927 - val_mae: 0.4390
Epoch 131/250
45 - val_loss: 0.1919 - val_mae: 0.4380
Epoch 132/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0269 - mae: 0.12
38 - val_loss: 0.1908 - val_mae: 0.4369
Epoch 133/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0266 - mae: 0.12
32 - val_loss: 0.1898 - val_mae: 0.4356
Epoch 134/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0264 - mae: 0.12
26 - val_loss: 0.1887 - val_mae: 0.4344
Epoch 135/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0262 - mae: 0.12
19 - val loss: 0.1877 - val mae: 0.4332
Epoch 136/250
1/1 [===========] - 0s 29ms/step - loss: 0.0259 - mae: 0.12
14 - val loss: 0.1867 - val mae: 0.4320
Epoch 137/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0257 - mae: 0.12
08 - val loss: 0.1857 - val mae: 0.4309
Epoch 138/250
03 - val loss: 0.1848 - val mae: 0.4299
Epoch 139/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0252 - mae: 0.11
97 - val loss: 0.1839 - val mae: 0.4288
Epoch 140/250
1/1 [=============== ] - 0s 30ms/step - loss: 0.0250 - mae: 0.11
92 - val loss: 0.1830 - val mae: 0.4278
Epoch 141/250
1/1 [=============== ] - 0s 30ms/step - loss: 0.0248 - mae: 0.11
```

```
87 - val_loss: 0.1822 - val_mae: 0.4269
Epoch 142/250
81 - val_loss: 0.1814 - val_mae: 0.4259
Epoch 143/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0243 - mae: 0.11
76 - val_loss: 0.1806 - val_mae: 0.4249
Epoch 144/250
72 - val_loss: 0.1797 - val_mae: 0.4240
Epoch 145/250
1/1 [============ ] - 0s 44ms/step - loss: 0.0239 - mae: 0.11
67 - val_loss: 0.1790 - val_mae: 0.4230
Epoch 146/250
63 - val_loss: 0.1782 - val_mae: 0.4221
Epoch 147/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0234 - mae: 0.11
58 - val_loss: 0.1775 - val_mae: 0.4213
Epoch 148/250
54 - val_loss: 0.1768 - val_mae: 0.4205
Epoch 149/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0230 - mae: 0.11
49 - val_loss: 0.1762 - val_mae: 0.4198
Epoch 150/250
1/1 [============ ] - 0s 44ms/step - loss: 0.0228 - mae: 0.11
45 - val_loss: 0.1757 - val_mae: 0.4191
Epoch 151/250
1/1 [=============== ] - 0s 44ms/step - loss: 0.0226 - mae: 0.11
40 - val_loss: 0.1752 - val_mae: 0.4185
Epoch 152/250
35 - val_loss: 0.1747 - val_mae: 0.4180
Epoch 153/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0222 - mae: 0.11
30 - val_loss: 0.1742 - val_mae: 0.4174
Epoch 154/250
24 - val_loss: 0.1737 - val_mae: 0.4168
Epoch 155/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0218 - mae: 0.11
21 - val_loss: 0.1732 - val_mae: 0.4162
Epoch 156/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0216 - mae: 0.11
18 - val_loss: 0.1727 - val_mae: 0.4155
Epoch 157/250
14 - val_loss: 0.1721 - val_mae: 0.4148
Epoch 158/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0213 - mae: 0.11
12 - val loss: 0.1714 - val mae: 0.4140
Epoch 159/250
1/1 [============] - 0s 47ms/step - loss: 0.0211 - mae: 0.11
09 - val loss: 0.1707 - val mae: 0.4132
Epoch 160/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0209 - mae: 0.11
06 - val loss: 0.1700 - val mae: 0.4123
Epoch 161/250
03 - val loss: 0.1692 - val mae: 0.4114
Epoch 162/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0205 - mae: 0.11
00 - val_loss: 0.1685 - val_mae: 0.4104
Epoch 163/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0204 - mae: 0.10
97 - val loss: 0.1677 - val mae: 0.4095
Epoch 164/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0202 - mae: 0.10
```

```
94 - val_loss: 0.1669 - val_mae: 0.4085
Epoch 165/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0200 - mae: 0.10
92 - val_loss: 0.1661 - val_mae: 0.4075
Epoch 166/250
89 - val_loss: 0.1653 - val_mae: 0.4066
Epoch 167/250
86 - val_loss: 0.1645 - val_mae: 0.4056
Epoch 168/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0195 - mae: 0.10
83 - val_loss: 0.1637 - val_mae: 0.4046
Epoch 169/250
80 - val_loss: 0.1629 - val_mae: 0.4037
Epoch 170/250
1/1 [============ ] - 0s 47ms/step - loss: 0.0192 - mae: 0.10
77 - val_loss: 0.1621 - val_mae: 0.4027
Epoch 171/250
74 - val_loss: 0.1613 - val_mae: 0.4017
Epoch 172/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0188 - mae: 0.10
70 - val_loss: 0.1605 - val_mae: 0.4006
Epoch 173/250
67 - val_loss: 0.1597 - val_mae: 0.3996
Epoch 174/250
64 - val_loss: 0.1588 - val_mae: 0.3985
Epoch 175/250
61 - val_loss: 0.1580 - val_mae: 0.3974
Epoch 176/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0182 - mae: 0.10
58 - val_loss: 0.1571 - val_mae: 0.3964
Epoch 177/250
55 - val_loss: 0.1563 - val_mae: 0.3953
Epoch 178/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0179 - mae: 0.10
52 - val_loss: 0.1554 - val_mae: 0.3943
Epoch 179/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0178 - mae: 0.10
49 - val_loss: 0.1546 - val_mae: 0.3932
Epoch 180/250
45 - val_loss: 0.1538 - val_mae: 0.3922
Epoch 181/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0175 - mae: 0.10
42 - val loss: 0.1530 - val mae: 0.3912
Epoch 182/250
1/1 [===========] - 0s 31ms/step - loss: 0.0173 - mae: 0.10
39 - val loss: 0.1522 - val mae: 0.3902
Epoch 183/250
35 - val loss: 0.1514 - val mae: 0.3891
Epoch 184/250
32 - val loss: 0.1506 - val mae: 0.3881
Epoch 185/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0169 - mae: 0.10
29 - val loss: 0.1498 - val mae: 0.3871
Epoch 186/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0167 - mae: 0.10
25 - val loss: 0.1490 - val mae: 0.3860
Epoch 187/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0166 - mae: 0.10
```

```
22 - val_loss: 0.1482 - val_mae: 0.3850
Epoch 188/250
18 - val_loss: 0.1474 - val_mae: 0.3839
Epoch 189/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0163 - mae: 0.10
15 - val_loss: 0.1466 - val_mae: 0.3828
Epoch 190/250
11 - val_loss: 0.1457 - val_mae: 0.3818
Epoch 191/250
1/1 [============ ] - 0s 48ms/step - loss: 0.0160 - mae: 0.10
08 - val_loss: 0.1449 - val_mae: 0.3807
Epoch 192/250
04 - val_loss: 0.1441 - val_mae: 0.3796
Epoch 193/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0158 - mae: 0.10
00 - val_loss: 0.1433 - val_mae: 0.3785
Epoch 194/250
97 - val_loss: 0.1425 - val_mae: 0.3775
Epoch 195/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0155 - mae: 0.09
93 - val_loss: 0.1417 - val_mae: 0.3764
Epoch 196/250
89 - val_loss: 0.1408 - val_mae: 0.3753
Epoch 197/250
86 - val_loss: 0.1400 - val_mae: 0.3742
Epoch 198/250
82 - val_loss: 0.1392 - val_mae: 0.3731
Epoch 199/250
1/1 [=============== ] - 0s 41ms/step - loss: 0.0150 - mae: 0.09
78 - val_loss: 0.1384 - val_mae: 0.3720
Epoch 200/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0149 - mae: 0.09
74 - val_loss: 0.1376 - val_mae: 0.3709
Epoch 201/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0147 - mae: 0.09
71 - val_loss: 0.1367 - val_mae: 0.3698
Epoch 202/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0146 - mae: 0.09
67 - val_loss: 0.1359 - val_mae: 0.3687
Epoch 203/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0145 - mae: 0.09
63 - val_loss: 0.1351 - val_mae: 0.3676
Epoch 204/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0144 - mae: 0.09
59 - val loss: 0.1343 - val mae: 0.3665
Epoch 205/250
1/1 [===========] - 0s 30ms/step - loss: 0.0143 - mae: 0.09
56 - val loss: 0.1335 - val mae: 0.3654
Epoch 206/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0141 - mae: 0.09
52 - val loss: 0.1327 - val mae: 0.3643
Epoch 207/250
48 - val loss: 0.1319 - val mae: 0.3632
Epoch 208/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0139 - mae: 0.09
44 - val_loss: 0.1311 - val_mae: 0.3621
Epoch 209/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0138 - mae: 0.09
40 - val loss: 0.1304 - val mae: 0.3610
Epoch 210/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0137 - mae: 0.09
```

```
36 - val_loss: 0.1296 - val_mae: 0.3600
Epoch 211/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0135 - mae: 0.09
32 - val_loss: 0.1288 - val_mae: 0.3589
Epoch 212/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0134 - mae: 0.09
29 - val_loss: 0.1281 - val_mae: 0.3579
Epoch 213/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0133 - mae: 0.09
25 - val_loss: 0.1273 - val_mae: 0.3568
Epoch 214/250
1/1 [=========== ] - 0s 38ms/step - loss: 0.0132 - mae: 0.09
21 - val_loss: 0.1265 - val_mae: 0.3557
Epoch 215/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0131 - mae: 0.09
17 - val_loss: 0.1258 - val_mae: 0.3546
Epoch 216/250
1/1 [============] - 0s 31ms/step - loss: 0.0130 - mae: 0.09
13 - val_loss: 0.1250 - val_mae: 0.3536
Epoch 217/250
09 - val_loss: 0.1243 - val_mae: 0.3525
Epoch 218/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0128 - mae: 0.09
05 - val_loss: 0.1235 - val_mae: 0.3514
Epoch 219/250
01 - val_loss: 0.1228 - val_mae: 0.3504
Epoch 220/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0125 - mae: 0.08
97 - val_loss: 0.1220 - val_mae: 0.3493
Epoch 221/250
93 - val_loss: 0.1213 - val_mae: 0.3482
Epoch 222/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0123 - mae: 0.08
89 - val_loss: 0.1205 - val_mae: 0.3472
Epoch 223/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0122 - mae: 0.08
85 - val_loss: 0.1198 - val_mae: 0.3461
Epoch 224/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0121 - mae: 0.08
81 - val_loss: 0.1190 - val_mae: 0.3450
Epoch 225/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0120 - mae: 0.08
77 - val_loss: 0.1183 - val_mae: 0.3440
Epoch 226/250
1/1 [============= ] - 0s 28ms/step - loss: 0.0119 - mae: 0.08
72 - val_loss: 0.1176 - val_mae: 0.3429
Epoch 227/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0118 - mae: 0.08
68 - val loss: 0.1169 - val mae: 0.3419
Epoch 228/250
1/1 [===========] - 0s 30ms/step - loss: 0.0117 - mae: 0.08
64 - val loss: 0.1161 - val mae: 0.3408
Epoch 229/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0116 - mae: 0.08
60 - val loss: 0.1154 - val mae: 0.3398
Epoch 230/250
56 - val loss: 0.1147 - val mae: 0.3387
Epoch 231/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0114 - mae: 0.08
52 - val loss: 0.1140 - val mae: 0.3377
Epoch 232/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0113 - mae: 0.08
48 - val loss: 0.1133 - val mae: 0.3366
Epoch 233/250
1/1 [=============== ] - 0s 32ms/step - loss: 0.0112 - mae: 0.08
```

```
44 - val_loss: 0.1126 - val_mae: 0.3356
Epoch 234/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0111 - mae: 0.08
40 - val_loss: 0.1120 - val_mae: 0.3346
Epoch 235/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0110 - mae: 0.08
36 - val_loss: 0.1113 - val_mae: 0.3336
Epoch 236/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0109 - mae: 0.08
32 - val_loss: 0.1106 - val_mae: 0.3326
Epoch 237/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0108 - mae: 0.08
27 - val_loss: 0.1099 - val_mae: 0.3316
Epoch 238/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0107 - mae: 0.08
23 - val_loss: 0.1093 - val_mae: 0.3306
Epoch 239/250
1/1 [=========== ] - 0s 34ms/step - loss: 0.0106 - mae: 0.08
19 - val_loss: 0.1086 - val_mae: 0.3296
Epoch 240/250
15 - val_loss: 0.1080 - val_mae: 0.3286
Epoch 241/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0104 - mae: 0.08
11 - val_loss: 0.1073 - val_mae: 0.3276
Epoch 242/250
07 - val_loss: 0.1067 - val_mae: 0.3266
Epoch 243/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0103 - mae: 0.08
03 - val_loss: 0.1060 - val_mae: 0.3256
Epoch 244/250
98 - val_loss: 0.1054 - val_mae: 0.3246
Epoch 245/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0101 - mae: 0.07
94 - val_loss: 0.1047 - val_mae: 0.3236
Epoch 246/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0100 - mae: 0.07
90 - val_loss: 0.1041 - val_mae: 0.3227
Epoch 247/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0099 - mae: 0.07
86 - val_loss: 0.1035 - val_mae: 0.3217
Epoch 248/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0098 - mae: 0.07
82 - val_loss: 0.1029 - val_mae: 0.3207
Epoch 249/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0097 - mae: 0.07
78 - val_loss: 0.1023 - val_mae: 0.3198
Epoch 250/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0096 - mae: 0.07
73 - val loss: 0.1016 - val mae: 0.3188
Epoch 1/250
1/1 [===========] - 1s 772ms/step - loss: 11.7119 - mae: 3.
4085 - val loss: 8.8601 - val mae: 2.9766
Epoch 2/250
1/1 [============ ] - 0s 30ms/step - loss: 10.7071 - mae: 3.2
594 - val loss: 8.3398 - val mae: 2.8879
Epoch 3/250
07 - val loss: 7.8739 - val mae: 2.8061
Epoch 4/250
1/1 [============ ] - 0s 31ms/step - loss: 8.6929 - mae: 2.92
89 - val_loss: 7.4125 - val_mae: 2.7226
Epoch 5/250
1/1 [============== ] - 0s 39ms/step - loss: 7.6720 - mae: 2.74
04 - val loss: 6.9497 - val mae: 2.6362
Epoch 6/250
1/1 [=============== ] - 0s 45ms/step - loss: 6.6430 - mae: 2.53
```

```
02 - val_loss: 6.4804 - val_mae: 2.5457
Epoch 7/250
51 - val_loss: 5.9926 - val_mae: 2.4480
Epoch 8/250
1/1 [============ ] - 0s 36ms/step - loss: 4.6611 - mae: 2.03
20 - val_loss: 5.4709 - val_mae: 2.3390
Epoch 9/250
00 - val_loss: 4.8940 - val_mae: 2.2122
Epoch 10/250
41 - val_loss: 4.2308 - val_mae: 2.0569
Epoch 11/250
57 - val_loss: 3.4613 - val_mae: 1.8604
Epoch 12/250
17 - val_loss: 2.6190 - val_mae: 1.6183
Epoch 13/250
12 - val_loss: 1.7944 - val_mae: 1.3396
Epoch 14/250
1/1 [============= ] - 0s 33ms/step - loss: 1.5562 - mae: 0.99
13 - val_loss: 1.0869 - val_mae: 1.0426
Epoch 15/250
68 - val_loss: 0.5558 - val_mae: 0.7455
Epoch 16/250
1/1 [============= ] - 0s 34ms/step - loss: 1.0305 - mae: 0.82
56 - val_loss: 0.2188 - val_mae: 0.4678
Epoch 17/250
04 - val_loss: 0.0502 - val_mae: 0.2240
Epoch 18/250
1/1 [============== ] - 0s 29ms/step - loss: 0.5372 - mae: 0.61
58 - val_loss: 4.8033e-04 - val_mae: 0.0219
Epoch 19/250
94 - val_loss: 0.0182 - val_mae: 0.1350
Epoch 20/250
1/1 [============= ] - 0s 29ms/step - loss: 0.2663 - mae: 0.40
93 - val_loss: 0.0605 - val_mae: 0.2459
Epoch 21/250
1/1 [============== ] - 0s 33ms/step - loss: 0.2477 - mae: 0.40
48 - val_loss: 0.0972 - val_mae: 0.3118
Epoch 22/250
1/1 [============= ] - 0s 34ms/step - loss: 0.2947 - mae: 0.45
25 - val_loss: 0.1110 - val_mae: 0.3332
Epoch 23/250
34 - val loss: 0.0984 - val mae: 0.3137
Epoch 24/250
1/1 [============== ] - 0s 28ms/step - loss: 0.4598 - mae: 0.57
46 - val loss: 0.0685 - val mae: 0.2617
Epoch 25/250
1/1 [============= ] - 0s 31ms/step - loss: 0.5110 - mae: 0.60
18 - val loss: 0.0357 - val mae: 0.1890
Epoch 26/250
71 - val loss: 0.0119 - val mae: 0.1093
Epoch 27/250
1/1 [============= ] - 0s 38ms/step - loss: 0.4765 - mae: 0.57
34 - val loss: 0.0010 - val mae: 0.0322
Epoch 28/250
1/1 [============== ] - 0s 37ms/step - loss: 0.4053 - mae: 0.52
84 - val loss: 0.0013 - val mae: 0.0363
Epoch 29/250
1/1 [============== ] - 0s 35ms/step - loss: 0.3195 - mae: 0.46
```

```
85 - val_loss: 0.0087 - val_mae: 0.0933
Epoch 30/250
09 - val_loss: 0.0191 - val_mae: 0.1384
Epoch 31/250
80 - val_loss: 0.0297 - val_mae: 0.1723
Epoch 32/250
1/1 [============ ] - 0s 33ms/step - loss: 0.1114 - mae: 0.26
48 - val_loss: 0.0388 - val_mae: 0.1971
Epoch 33/250
13 - val_loss: 0.0463 - val_mae: 0.2153
Epoch 34/250
47 - val_loss: 0.0527 - val_mae: 0.2296
Epoch 35/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0776 - mae: 0.23
21 - val_loss: 0.0588 - val_mae: 0.2425
Epoch 36/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0921 - mae: 0.25
33 - val_loss: 0.0656 - val_mae: 0.2561
Epoch 37/250
1/1 [============== ] - 0s 36ms/step - loss: 0.1090 - mae: 0.28
15 - val_loss: 0.0736 - val_mae: 0.2714
Epoch 38/250
01 - val_loss: 0.0833 - val_mae: 0.2887
Epoch 39/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1313 - mae: 0.30
79 - val_loss: 0.0945 - val_mae: 0.3074
Epoch 40/250
61 - val_loss: 0.1065 - val_mae: 0.3263
Epoch 41/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1285 - mae: 0.29
61 - val_loss: 0.1182 - val_mae: 0.3438
Epoch 42/250
04 - val_loss: 0.1283 - val_mae: 0.3582
Epoch 43/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1110 - mae: 0.26
61 - val_loss: 0.1353 - val_mae: 0.3678
Epoch 44/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1012 - mae: 0.25
50 - val_loss: 0.1379 - val_mae: 0.3714
Epoch 45/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0920 - mae: 0.24
16 - val_loss: 0.1354 - val_mae: 0.3680
Epoch 46/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0837 - mae: 0.23
19 - val loss: 0.1275 - val mae: 0.3571
Epoch 47/250
1/1 [===========] - 0s 29ms/step - loss: 0.0761 - mae: 0.22
05 - val loss: 0.1149 - val mae: 0.3389
Epoch 48/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0691 - mae: 0.21
03 - val loss: 0.0985 - val mae: 0.3138
Epoch 49/250
29 - val loss: 0.0801 - val mae: 0.2829
Epoch 50/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0576 - mae: 0.19
45 - val loss: 0.0613 - val mae: 0.2476
Epoch 51/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0538 - mae: 0.18
67 - val loss: 0.0440 - val mae: 0.2097
Epoch 52/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0517 - mae: 0.18
```

```
60 - val_loss: 0.0292 - val_mae: 0.1710
Epoch 53/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0514 - mae: 0.18
58 - val_loss: 0.0179 - val_mae: 0.1337
Epoch 54/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0524 - mae: 0.18
69 - val_loss: 0.0099 - val_mae: 0.0997
Epoch 55/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0542 - mae: 0.18
79 - val_loss: 0.0050 - val_mae: 0.0707
Epoch 56/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0561 - mae: 0.18
94 - val_loss: 0.0023 - val_mae: 0.0482
Epoch 57/250
11 - val_loss: 0.0011 - val_mae: 0.0329
Epoch 58/250
09 - val_loss: 6.2029e-04 - val_mae: 0.0249
Epoch 59/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0562 - mae: 0.18
92 - val loss: 5.7492e-04 - val mae: 0.0240
Epoch 60/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0540 - mae: 0.18
57 - val_loss: 8.5221e-04 - val_mae: 0.0292
Epoch 61/250
1/1 [============] - 0s 29ms/step - loss: 0.0511 - mae: 0.18
12 - val_loss: 0.0015 - val_mae: 0.0393
Epoch 62/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0482 - mae: 0.17
58 - val_loss: 0.0028 - val_mae: 0.0529
Epoch 63/250
10 - val_loss: 0.0047 - val_mae: 0.0684
Epoch 64/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0435 - mae: 0.16
70 - val_loss: 0.0071 - val_mae: 0.0846
Epoch 65/250
43 - val_loss: 0.0100 - val_mae: 0.1000
Epoch 66/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0411 - mae: 0.16
18 - val_loss: 0.0130 - val_mae: 0.1140
Epoch 67/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0405 - mae: 0.15
91 - val_loss: 0.0158 - val_mae: 0.1258
Epoch 68/250
67 - val_loss: 0.0182 - val_mae: 0.1351
Epoch 69/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0396 - mae: 0.15
54 - val loss: 0.0201 - val mae: 0.1418
Epoch 70/250
1/1 [============ ] - 0s 44ms/step - loss: 0.0391 - mae: 0.15
38 - val loss: 0.0214 - val mae: 0.1463
Epoch 71/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0386 - mae: 0.15
34 - val loss: 0.0221 - val mae: 0.1487
Epoch 72/250
29 - val loss: 0.0224 - val mae: 0.1495
Epoch 73/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0377 - mae: 0.15
21 - val loss: 0.0223 - val mae: 0.1493
Epoch 74/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0372 - mae: 0.15
14 - val loss: 0.0220 - val mae: 0.1484
Epoch 75/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0367 - mae: 0.15
```

```
04 - val_loss: 0.0217 - val_mae: 0.1474
Epoch 76/250
92 - val_loss: 0.0214 - val_mae: 0.1463
Epoch 77/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0356 - mae: 0.14
78 - val_loss: 0.0211 - val_mae: 0.1454
Epoch 78/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0348 - mae: 0.14
68 - val_loss: 0.0209 - val_mae: 0.1447
Epoch 79/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0340 - mae: 0.14
57 - val_loss: 0.0207 - val_mae: 0.1440
Epoch 80/250
45 - val_loss: 0.0205 - val_mae: 0.1431
Epoch 81/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0326 - mae: 0.14
31 - val_loss: 0.0201 - val_mae: 0.1418
Epoch 82/250
18 - val loss: 0.0196 - val mae: 0.1398
Epoch 83/250
1/1 [============== ] - 0s 63ms/step - loss: 0.0315 - mae: 0.14
05 - val_loss: 0.0188 - val_mae: 0.1371
Epoch 84/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0312 - mae: 0.13
93 - val_loss: 0.0178 - val_mae: 0.1335
Epoch 85/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0309 - mae: 0.13
83 - val_loss: 0.0166 - val_mae: 0.1290
Epoch 86/250
75 - val_loss: 0.0153 - val_mae: 0.1237
Epoch 87/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0302 - mae: 0.13
68 - val_loss: 0.0139 - val_mae: 0.1178
Epoch 88/250
63 - val_loss: 0.0125 - val_mae: 0.1118
Epoch 89/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0294 - mae: 0.13
58 - val_loss: 0.0112 - val_mae: 0.1058
Epoch 90/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0290 - mae: 0.13
55 - val_loss: 0.0101 - val_mae: 0.1003
Epoch 91/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0286 - mae: 0.13
51 - val_loss: 0.0091 - val_mae: 0.0956
Epoch 92/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0282 - mae: 0.13
46 - val loss: 0.0085 - val mae: 0.0920
Epoch 93/250
1/1 [===========] - 0s 33ms/step - loss: 0.0278 - mae: 0.13
41 - val loss: 0.0081 - val mae: 0.0897
Epoch 94/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0274 - mae: 0.13
34 - val loss: 0.0079 - val mae: 0.0888
Epoch 95/250
28 - val loss: 0.0080 - val mae: 0.0893
Epoch 96/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0267 - mae: 0.13
20 - val loss: 0.0083 - val mae: 0.0909
Epoch 97/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0264 - mae: 0.13
11 - val loss: 0.0087 - val mae: 0.0935
Epoch 98/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0260 - mae: 0.13
```

```
00 - val_loss: 0.0094 - val_mae: 0.0967
Epoch 99/250
89 - val_loss: 0.0101 - val_mae: 0.1003
Epoch 100/250
78 - val_loss: 0.0108 - val_mae: 0.1038
Epoch 101/250
66 - val_loss: 0.0114 - val_mae: 0.1069
Epoch 102/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0248 - mae: 0.12
56 - val_loss: 0.0120 - val_mae: 0.1095
Epoch 103/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0245 - mae: 0.12
48 - val_loss: 0.0124 - val_mae: 0.1115
Epoch 104/250
1/1 [===========] - 0s 38ms/step - loss: 0.0242 - mae: 0.12
40 - val_loss: 0.0127 - val_mae: 0.1126
Epoch 105/250
34 - val_loss: 0.0128 - val_mae: 0.1129
Epoch 106/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0236 - mae: 0.12
29 - val_loss: 0.0127 - val_mae: 0.1126
Epoch 107/250
25 - val_loss: 0.0125 - val_mae: 0.1118
Epoch 108/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0230 - mae: 0.12
21 - val_loss: 0.0122 - val_mae: 0.1105
Epoch 109/250
17 - val_loss: 0.0119 - val_mae: 0.1091
Epoch 110/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0225 - mae: 0.12
13 - val_loss: 0.0116 - val_mae: 0.1076
Epoch 111/250
08 - val_loss: 0.0113 - val_mae: 0.1062
Epoch 112/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0219 - mae: 0.12
01 - val_loss: 0.0110 - val_mae: 0.1049
Epoch 113/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0217 - mae: 0.11
94 - val_loss: 0.0108 - val_mae: 0.1039
Epoch 114/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0214 - mae: 0.11
86 - val_loss: 0.0106 - val_mae: 0.1031
Epoch 115/250
77 - val loss: 0.0105 - val mae: 0.1025
Epoch 116/250
1/1 [===========] - 0s 36ms/step - loss: 0.0209 - mae: 0.11
67 - val loss: 0.0104 - val mae: 0.1021
Epoch 117/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0207 - mae: 0.11
58 - val loss: 0.0103 - val mae: 0.1017
Epoch 118/250
48 - val loss: 0.0103 - val mae: 0.1014
Epoch 119/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0202 - mae: 0.11
39 - val loss: 0.0102 - val mae: 0.1011
Epoch 120/250
1/1 [=============== ] - 0s 30ms/step - loss: 0.0199 - mae: 0.11
31 - val loss: 0.0102 - val mae: 0.1009
Epoch 121/250
1/1 [=============== ] - 0s 29ms/step - loss: 0.0197 - mae: 0.11
```

```
24 - val_loss: 0.0101 - val_mae: 0.1006
Epoch 122/250
17 - val_loss: 0.0101 - val_mae: 0.1003
Epoch 123/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0192 - mae: 0.11
11 - val_loss: 0.0100 - val_mae: 0.1001
Epoch 124/250
06 - val_loss: 0.0100 - val_mae: 0.1000
Epoch 125/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0188 - mae: 0.11
00 - val_loss: 0.0100 - val_mae: 0.1001
Epoch 126/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0186 - mae: 0.10
94 - val_loss: 0.0100 - val_mae: 0.1002
Epoch 127/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0183 - mae: 0.10
88 - val_loss: 0.0101 - val_mae: 0.1006
Epoch 128/250
81 - val_loss: 0.0102 - val_mae: 0.1010
Epoch 129/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0179 - mae: 0.10
73 - val_loss: 0.0103 - val_mae: 0.1016
Epoch 130/250
65 - val_loss: 0.0104 - val_mae: 0.1022
Epoch 131/250
57 - val_loss: 0.0106 - val_mae: 0.1028
Epoch 132/250
48 - val_loss: 0.0107 - val_mae: 0.1033
Epoch 133/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0171 - mae: 0.10
41 - val_loss: 0.0108 - val_mae: 0.1038
Epoch 134/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0169 - mae: 0.10
33 - val_loss: 0.0108 - val_mae: 0.1041
Epoch 135/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0167 - mae: 0.10
26 - val_loss: 0.0109 - val_mae: 0.1044
Epoch 136/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0165 - mae: 0.10
19 - val_loss: 0.0109 - val_mae: 0.1045
Epoch 137/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0163 - mae: 0.10
12 - val_loss: 0.0109 - val_mae: 0.1045
Epoch 138/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0161 - mae: 0.10
06 - val loss: 0.0109 - val mae: 0.1044
Epoch 139/250
1/1 [===========] - 0s 34ms/step - loss: 0.0159 - mae: 0.10
00 - val loss: 0.0109 - val mae: 0.1043
Epoch 140/250
95 - val loss: 0.0109 - val mae: 0.1043
Epoch 141/250
89 - val loss: 0.0109 - val mae: 0.1043
Epoch 142/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0153 - mae: 0.09
83 - val loss: 0.0109 - val mae: 0.1045
Epoch 143/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0152 - mae: 0.09
77 - val loss: 0.0110 - val mae: 0.1047
Epoch 144/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0150 - mae: 0.09
```

```
71 - val_loss: 0.0110 - val_mae: 0.1050
Epoch 145/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0148 - mae: 0.09
65 - val_loss: 0.0111 - val_mae: 0.1055
Epoch 146/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0146 - mae: 0.09
58 - val_loss: 0.0112 - val_mae: 0.1059
Epoch 147/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0144 - mae: 0.09
51 - val_loss: 0.0113 - val_mae: 0.1064
Epoch 148/250
45 - val_loss: 0.0114 - val_mae: 0.1069
Epoch 149/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0141 - mae: 0.09
38 - val_loss: 0.0115 - val_mae: 0.1074
Epoch 150/250
1/1 [=========== ] - 0s 35ms/step - loss: 0.0139 - mae: 0.09
31 - val_loss: 0.0116 - val_mae: 0.1078
Epoch 151/250
25 - val_loss: 0.0117 - val_mae: 0.1081
Epoch 152/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0136 - mae: 0.09
18 - val_loss: 0.0117 - val_mae: 0.1084
Epoch 153/250
1/1 [============= ] - 0s 159ms/step - loss: 0.0134 - mae: 0.0
912 - val_loss: 0.0118 - val_mae: 0.1086
Epoch 154/250
1/1 [============== ] - 0s 50ms/step - loss: 0.0132 - mae: 0.09
06 - val_loss: 0.0118 - val_mae: 0.1088
Epoch 155/250
00 - val_loss: 0.0119 - val_mae: 0.1090
Epoch 156/250
1/1 [============== ] - 0s 60ms/step - loss: 0.0129 - mae: 0.08
94 - val_loss: 0.0119 - val_mae: 0.1092
Epoch 157/250
1/1 [============== ] - ETA: 0s - loss: 0.0127 - mae: 0.088 - 0
s 48ms/step - loss: 0.0127 - mae: 0.0887 - val_loss: 0.0120 - val_mae: 0.1095
Epoch 158/250
1/1 [============ ] - 0s 60ms/step - loss: 0.0125 - mae: 0.08
81 - val_loss: 0.0121 - val_mae: 0.1098
Epoch 159/250
1/1 [============= ] - 0s 107ms/step - loss: 0.0124 - mae: 0.0
874 - val_loss: 0.0121 - val_mae: 0.1101
Epoch 160/250
1/1 [============ ] - 0s 79ms/step - loss: 0.0122 - mae: 0.08
67 - val_loss: 0.0122 - val_mae: 0.1105
Epoch 161/250
1/1 [============ ] - 0s 57ms/step - loss: 0.0120 - mae: 0.08
60 - val loss: 0.0123 - val mae: 0.1109
Epoch 162/250
1/1 [===========] - 0s 37ms/step - loss: 0.0119 - mae: 0.08
54 - val loss: 0.0124 - val mae: 0.1113
Epoch 163/250
48 - val loss: 0.0125 - val mae: 0.1116
Epoch 164/250
41 - val loss: 0.0125 - val mae: 0.1120
Epoch 165/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0114 - mae: 0.08
35 - val_loss: 0.0126 - val_mae: 0.1124
Epoch 166/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0112 - mae: 0.08
29 - val loss: 0.0127 - val mae: 0.1127
Epoch 167/250
1/1 [=============== ] - 0s 41ms/step - loss: 0.0111 - mae: 0.08
```

```
23 - val_loss: 0.0128 - val_mae: 0.1130
Epoch 168/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0109 - mae: 0.08
17 - val_loss: 0.0128 - val_mae: 0.1132
Epoch 169/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0108 - mae: 0.08
11 - val_loss: 0.0129 - val_mae: 0.1135
Epoch 170/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0106 - mae: 0.08
05 - val_loss: 0.0129 - val_mae: 0.1137
Epoch 171/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0105 - mae: 0.07
99 - val_loss: 0.0130 - val_mae: 0.1140
Epoch 172/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0103 - mae: 0.07
93 - val_loss: 0.0131 - val_mae: 0.1143
Epoch 173/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0102 - mae: 0.07
87 - val_loss: 0.0131 - val_mae: 0.1146
Epoch 174/250
81 - val_loss: 0.0132 - val_mae: 0.1149
Epoch 175/250
1/1 [============== ] - 0s 65ms/step - loss: 0.0099 - mae: 0.07
75 - val_loss: 0.0133 - val_mae: 0.1152
Epoch 176/250
1/1 [============] - 0s 148ms/step - loss: 0.0097 - mae: 0.0
769 - val_loss: 0.0133 - val_mae: 0.1155
Epoch 177/250
1/1 [============== ] - 0s 86ms/step - loss: 0.0096 - mae: 0.07
63 - val_loss: 0.0134 - val_mae: 0.1157
Epoch 178/250
57 - val_loss: 0.0135 - val_mae: 0.1160
Epoch 179/250
1/1 [============== ] - 0s 53ms/step - loss: 0.0093 - mae: 0.07
51 - val_loss: 0.0135 - val_mae: 0.1163
Epoch 180/250
45 - val_loss: 0.0136 - val_mae: 0.1165
Epoch 181/250
1/1 [=============== ] - 0s 45ms/step - loss: 0.0090 - mae: 0.07
39 - val_loss: 0.0136 - val_mae: 0.1168
Epoch 182/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0089 - mae: 0.07
33 - val_loss: 0.0137 - val_mae: 0.1170
Epoch 183/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0087 - mae: 0.07
27 - val_loss: 0.0137 - val_mae: 0.1172
Epoch 184/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0086 - mae: 0.07
21 - val loss: 0.0138 - val mae: 0.1175
Epoch 185/250
1/1 [===========] - 0s 37ms/step - loss: 0.0085 - mae: 0.07
15 - val loss: 0.0139 - val mae: 0.1177
Epoch 186/250
09 - val loss: 0.0139 - val mae: 0.1180
Epoch 187/250
03 - val loss: 0.0140 - val mae: 0.1183
Epoch 188/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0081 - mae: 0.06
96 - val loss: 0.0141 - val mae: 0.1186
Epoch 189/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0080 - mae: 0.06
90 - val loss: 0.0141 - val mae: 0.1189
Epoch 190/250
1/1 [=============== ] - 0s 39ms/step - loss: 0.0078 - mae: 0.06
```

```
84 - val_loss: 0.0142 - val_mae: 0.1192
Epoch 191/250
78 - val_loss: 0.0143 - val_mae: 0.1195
Epoch 192/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0076 - mae: 0.06
72 - val_loss: 0.0144 - val_mae: 0.1198
Epoch 193/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0075 - mae: 0.06
66 - val_loss: 0.0144 - val_mae: 0.1201
Epoch 194/250
1/1 [=========== ] - 0s 40ms/step - loss: 0.0073 - mae: 0.06
60 - val_loss: 0.0145 - val_mae: 0.1204
Epoch 195/250
1/1 [=========== ] - 0s 41ms/step - loss: 0.0072 - mae: 0.06
54 - val_loss: 0.0146 - val_mae: 0.1207
Epoch 196/250
1/1 [=========== ] - 0s 39ms/step - loss: 0.0071 - mae: 0.06
48 - val_loss: 0.0146 - val_mae: 0.1210
Epoch 197/250
43 - val_loss: 0.0147 - val_mae: 0.1213
Epoch 198/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0069 - mae: 0.06
37 - val_loss: 0.0148 - val_mae: 0.1215
Epoch 199/250
32 - val_loss: 0.0148 - val_mae: 0.1218
Epoch 200/250
1/1 [============= ] - 0s 50ms/step - loss: 0.0066 - mae: 0.06
26 - val_loss: 0.0149 - val_mae: 0.1221
Epoch 201/250
21 - val_loss: 0.0150 - val_mae: 0.1224
Epoch 202/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0064 - mae: 0.06
15 - val_loss: 0.0151 - val_mae: 0.1228
Epoch 203/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0063 - mae: 0.06
09 - val_loss: 0.0151 - val_mae: 0.1231
Epoch 204/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0062 - mae: 0.06
03 - val_loss: 0.0152 - val_mae: 0.1234
Epoch 205/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0061 - mae: 0.05
98 - val_loss: 0.0153 - val_mae: 0.1237
Epoch 206/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0060 - mae: 0.05
92 - val_loss: 0.0154 - val_mae: 0.1240
Epoch 207/250
1/1 [============ ] - 0s 45ms/step - loss: 0.0059 - mae: 0.05
86 - val loss: 0.0155 - val mae: 0.1244
Epoch 208/250
1/1 [===========] - 0s 29ms/step - loss: 0.0057 - mae: 0.05
81 - val loss: 0.0155 - val mae: 0.1247
Epoch 209/250
75 - val loss: 0.0156 - val mae: 0.1250
Epoch 210/250
69 - val loss: 0.0157 - val mae: 0.1253
Epoch 211/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0054 - mae: 0.05
64 - val loss: 0.0158 - val mae: 0.1257
Epoch 212/250
1/1 [============== ] - 0s 67ms/step - loss: 0.0053 - mae: 0.05
58 - val loss: 0.0159 - val mae: 0.1260
Epoch 213/250
1/1 [============== ] - 0s 53ms/step - loss: 0.0052 - mae: 0.05
```

```
52 - val_loss: 0.0160 - val_mae: 0.1263
Epoch 214/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0051 - mae: 0.05
46 - val_loss: 0.0161 - val_mae: 0.1267
Epoch 215/250
41 - val_loss: 0.0161 - val_mae: 0.1271
Epoch 216/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0049 - mae: 0.05
35 - val_loss: 0.0162 - val_mae: 0.1274
Epoch 217/250
1/1 [============ ] - 0s 43ms/step - loss: 0.0049 - mae: 0.05
29 - val_loss: 0.0163 - val_mae: 0.1278
Epoch 218/250
23 - val_loss: 0.0164 - val_mae: 0.1282
Epoch 219/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0047 - mae: 0.05
18 - val_loss: 0.0165 - val_mae: 0.1286
Epoch 220/250
12 - val_loss: 0.0166 - val_mae: 0.1290
Epoch 221/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0045 - mae: 0.05
06 - val_loss: 0.0167 - val_mae: 0.1294
Epoch 222/250
00 - val_loss: 0.0168 - val_mae: 0.1298
Epoch 223/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0043 - mae: 0.04
95 - val_loss: 0.0169 - val_mae: 0.1302
Epoch 224/250
89 - val_loss: 0.0171 - val_mae: 0.1306
Epoch 225/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0041 - mae: 0.04
84 - val_loss: 0.0172 - val_mae: 0.1310
Epoch 226/250
79 - val_loss: 0.0173 - val_mae: 0.1314
Epoch 227/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0040 - mae: 0.04
73 - val_loss: 0.0174 - val_mae: 0.1319
Epoch 228/250
1/1 [============== ] - 0s 79ms/step - loss: 0.0039 - mae: 0.04
68 - val_loss: 0.0175 - val_mae: 0.1323
Epoch 229/250
1/1 [============= ] - 0s 51ms/step - loss: 0.0038 - mae: 0.04
62 - val_loss: 0.0176 - val_mae: 0.1328
Epoch 230/250
1/1 [============= ] - 0s 57ms/step - loss: 0.0037 - mae: 0.04
57 - val loss: 0.0178 - val mae: 0.1333
Epoch 231/250
1/1 [===========] - 0s 81ms/step - loss: 0.0037 - mae: 0.04
52 - val loss: 0.0179 - val mae: 0.1337
Epoch 232/250
46 - val loss: 0.0180 - val mae: 0.1342
Epoch 233/250
41 - val loss: 0.0182 - val mae: 0.1347
Epoch 234/250
1/1 [============== ] - 0s 49ms/step - loss: 0.0034 - mae: 0.04
36 - val loss: 0.0183 - val mae: 0.1352
Epoch 235/250
1/1 [============== ] - 0s 54ms/step - loss: 0.0034 - mae: 0.04
31 - val loss: 0.0184 - val mae: 0.1357
Epoch 236/250
1/1 [=============== ] - 0s 50ms/step - loss: 0.0033 - mae: 0.04
```

```
26 - val_loss: 0.0186 - val_mae: 0.1363
Epoch 237/250
1/1 [============= ] - 0s 70ms/step - loss: 0.0032 - mae: 0.04
21 - val_loss: 0.0187 - val_mae: 0.1368
Epoch 238/250
16 - val_loss: 0.0188 - val_mae: 0.1373
Epoch 239/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0031 - mae: 0.04
11 - val_loss: 0.0190 - val_mae: 0.1378
Epoch 240/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0030 - mae: 0.04
07 - val_loss: 0.0191 - val_mae: 0.1383
Epoch 241/250
02 - val_loss: 0.0193 - val_mae: 0.1389
Epoch 242/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0029 - mae: 0.03
97 - val_loss: 0.0194 - val_mae: 0.1394
Epoch 243/250
93 - val_loss: 0.0196 - val_mae: 0.1399
Epoch 244/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0028 - mae: 0.03
88 - val_loss: 0.0197 - val_mae: 0.1404
Epoch 245/250
84 - val_loss: 0.0199 - val_mae: 0.1410
Epoch 246/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0027 - mae: 0.03
79 - val_loss: 0.0200 - val_mae: 0.1415
Epoch 247/250
75 - val_loss: 0.0202 - val_mae: 0.1420
Epoch 248/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0025 - mae: 0.03
70 - val_loss: 0.0203 - val_mae: 0.1426
Epoch 249/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0025 - mae: 0.03
66 - val_loss: 0.0205 - val_mae: 0.1431
Epoch 250/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0024 - mae: 0.03
61 - val_loss: 0.0206 - val_mae: 0.1436
Epoch 1/250
1/1 [============== ] - 1s 847ms/step - loss: 10.7261 - mae: 3.
1282 - val_loss: 18.8098 - val_mae: 4.3370
Epoch 2/250
67 - val_loss: 17.0028 - val_mae: 4.1234
Epoch 3/250
89 - val loss: 14.8817 - val mae: 3.8577
Epoch 4/250
1/1 [============= ] - 0s 41ms/step - loss: 5.6342 - mae: 2.26
14 - val loss: 12.2916 - val mae: 3.5059
Epoch 5/250
1/1 [============ ] - 0s 39ms/step - loss: 4.1342 - mae: 1.93
71 - val loss: 9.2569 - val mae: 3.0425
Epoch 6/250
30 - val loss: 6.3489 - val mae: 2.5197
Epoch 7/250
1/1 [============ ] - 0s 36ms/step - loss: 1.8472 - mae: 1.26
60 - val loss: 4.0584 - val mae: 2.0146
Epoch 8/250
1/1 [============== ] - 0s 39ms/step - loss: 1.0564 - mae: 0.94
03 - val loss: 2.2932 - val mae: 1.5143
Epoch 9/250
1/1 [============ ] - 0s 43ms/step - loss: 0.5225 - mae: 0.60
```

```
50 - val_loss: 1.0270 - val_mae: 1.0134
Epoch 10/250
42 - val_loss: 0.2819 - val_mae: 0.5309
Epoch 11/250
1/1 [============= ] - 0s 44ms/step - loss: 0.2431 - mae: 0.36
80 - val_loss: 0.0078 - val_mae: 0.0881
Epoch 12/250
1/1 [============= ] - 0s 36ms/step - loss: 0.4146 - mae: 0.52
71 - val_loss: 0.0838 - val_mae: 0.2894
Epoch 13/250
36 - val_loss: 0.3335 - val_mae: 0.5775
Epoch 14/250
71 - val_loss: 0.5828 - val_mae: 0.7634
Epoch 15/250
1/1 [=========== ] - 0s 40ms/step - loss: 0.9420 - mae: 0.85
08 - val_loss: 0.7218 - val_mae: 0.8496
Epoch 16/250
1/1 [============= ] - 0s 43ms/step - loss: 0.9135 - mae: 0.82
48 - val_loss: 0.7191 - val_mae: 0.8480
Epoch 17/250
1/1 [============= ] - 0s 33ms/step - loss: 0.8021 - mae: 0.75
19 - val_loss: 0.5999 - val_mae: 0.7745
Epoch 18/250
31 - val_loss: 0.4179 - val_mae: 0.6464
Epoch 19/250
1/1 [============= ] - 0s 41ms/step - loss: 0.4922 - mae: 0.55
49 - val_loss: 0.2309 - val_mae: 0.4806
Epoch 20/250
47 - val_loss: 0.0855 - val_mae: 0.2924
Epoch 21/250
1/1 [============== ] - 0s 42ms/step - loss: 0.2465 - mae: 0.42
20 - val_loss: 0.0090 - val_mae: 0.0950
Epoch 22/250
57 - val_loss: 0.0102 - val_mae: 0.1010
Epoch 23/250
1/1 [============== ] - 0s 45ms/step - loss: 0.1355 - mae: 0.32
46 - val_loss: 0.0825 - val_mae: 0.2872
Epoch 24/250
1/1 [============== ] - 0s 43ms/step - loss: 0.1231 - mae: 0.27
51 - val_loss: 0.2095 - val_mae: 0.4578
Epoch 25/250
1/1 [============= ] - 0s 46ms/step - loss: 0.1300 - mae: 0.26
86 - val_loss: 0.3691 - val_mae: 0.6075
Epoch 26/250
36 - val loss: 0.5366 - val mae: 0.7326
Epoch 27/250
1/1 [===========] - 0s 40ms/step - loss: 0.1711 - mae: 0.30
60 - val loss: 0.6910 - val mae: 0.8313
Epoch 28/250
1/1 [============ ] - 0s 43ms/step - loss: 0.1925 - mae: 0.32
91 - val loss: 0.8152 - val mae: 0.9029
Epoch 29/250
38 - val loss: 0.8977 - val mae: 0.9475
Epoch 30/250
1/1 [============= ] - 0s 42ms/step - loss: 0.2166 - mae: 0.34
65 - val loss: 0.9330 - val mae: 0.9659
Epoch 31/250
1/1 [============== ] - 0s 39ms/step - loss: 0.2159 - mae: 0.34
28 - val loss: 0.9210 - val mae: 0.9597
Epoch 32/250
1/1 [============ ] - 0s 42ms/step - loss: 0.2069 - mae: 0.33
```

```
51 - val_loss: 0.8670 - val_mae: 0.9311
Epoch 33/250
17 - val_loss: 0.7798 - val_mae: 0.8830
Epoch 34/250
69 - val_loss: 0.6705 - val_mae: 0.8189
Epoch 35/250
1/1 [============= ] - 0s 42ms/step - loss: 0.1465 - mae: 0.28
98 - val_loss: 0.5511 - val_mae: 0.7423
Epoch 36/250
91 - val_loss: 0.4322 - val_mae: 0.6574
Epoch 37/250
31 - val_loss: 0.3228 - val_mae: 0.5681
Epoch 38/250
1/1 [============ ] - 0s 47ms/step - loss: 0.0836 - mae: 0.21
81 - val_loss: 0.2289 - val_mae: 0.4784
Epoch 39/250
08 - val_loss: 0.1537 - val_mae: 0.3921
Epoch 40/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0633 - mae: 0.19
24 - val_loss: 0.0977 - val_mae: 0.3126
Epoch 41/250
1/1 [============] - 0s 43ms/step - loss: 0.0609 - mae: 0.19
67 - val_loss: 0.0590 - val_mae: 0.2428
Epoch 42/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0628 - mae: 0.21
00 - val_loss: 0.0343 - val_mae: 0.1853
Epoch 43/250
46 - val_loss: 0.0200 - val_mae: 0.1416
Epoch 44/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0737 - mae: 0.23
73 - val_loss: 0.0127 - val_mae: 0.1127
Epoch 45/250
92 - val_loss: 0.0097 - val_mae: 0.0986
Epoch 46/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0828 - mae: 0.25
64 - val_loss: 0.0097 - val_mae: 0.0987
Epoch 47/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0835 - mae: 0.25
80 - val_loss: 0.0124 - val_mae: 0.1116
Epoch 48/250
41 - val_loss: 0.0183 - val_mae: 0.1353
Epoch 49/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0762 - mae: 0.24
55 - val loss: 0.0281 - val mae: 0.1678
Epoch 50/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0696 - mae: 0.23
30 - val loss: 0.0427 - val mae: 0.2066
Epoch 51/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0626 - mae: 0.21
78 - val loss: 0.0623 - val mae: 0.2496
Epoch 52/250
17 - val loss: 0.0867 - val mae: 0.2944
Epoch 53/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0513 - mae: 0.18
54 - val_loss: 0.1151 - val_mae: 0.3392
Epoch 54/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0483 - mae: 0.17
21 - val loss: 0.1461 - val mae: 0.3822
Epoch 55/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0469 - mae: 0.16
```

```
34 - val_loss: 0.1781 - val_mae: 0.4220
Epoch 56/250
85 - val_loss: 0.2092 - val_mae: 0.4574
Epoch 57/250
70 - val_loss: 0.2376 - val_mae: 0.4874
Epoch 58/250
91 - val_loss: 0.2616 - val_mae: 0.5114
Epoch 59/250
1/1 [============= ] - 0s 50ms/step - loss: 0.0498 - mae: 0.16
08 - val_loss: 0.2799 - val_mae: 0.5291
Epoch 60/250
1/1 [============= ] - 0s 48ms/step - loss: 0.0502 - mae: 0.16
15 - val_loss: 0.2918 - val_mae: 0.5402
Epoch 61/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0499 - mae: 0.16
06 - val_loss: 0.2968 - val_mae: 0.5448
Epoch 62/250
80 - val loss: 0.2952 - val mae: 0.5433
Epoch 63/250
1/1 [============== ] - 0s 74ms/step - loss: 0.0475 - mae: 0.15
44 - val_loss: 0.2876 - val_mae: 0.5363
Epoch 64/250
1/1 [============] - 0s 38ms/step - loss: 0.0456 - mae: 0.15
08 - val_loss: 0.2751 - val_mae: 0.5245
Epoch 65/250
1/1 [=============== ] - 0s 40ms/step - loss: 0.0436 - mae: 0.14
86 - val_loss: 0.2590 - val_mae: 0.5089
Epoch 66/250
90 - val_loss: 0.2407 - val_mae: 0.4906
Epoch 67/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0401 - mae: 0.15
14 - val_loss: 0.2218 - val_mae: 0.4709
Epoch 68/250
36 - val_loss: 0.2035 - val_mae: 0.4511
Epoch 69/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0380 - mae: 0.15
55 - val_loss: 0.1868 - val_mae: 0.4322
Epoch 70/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0374 - mae: 0.15
69 - val_loss: 0.1727 - val_mae: 0.4155
Epoch 71/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0372 - mae: 0.15
79 - val_loss: 0.1615 - val_mae: 0.4019
Epoch 72/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0370 - mae: 0.15
83 - val loss: 0.1537 - val mae: 0.3921
Epoch 73/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0368 - mae: 0.15
89 - val loss: 0.1493 - val mae: 0.3864
Epoch 74/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0365 - mae: 0.15
88 - val loss: 0.1484 - val mae: 0.3852
Epoch 75/250
79 - val loss: 0.1507 - val mae: 0.3882
Epoch 76/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0355 - mae: 0.15
63 - val_loss: 0.1561 - val_mae: 0.3950
Epoch 77/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0347 - mae: 0.15
41 - val loss: 0.1642 - val mae: 0.4052
Epoch 78/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0338 - mae: 0.15
```

```
22 - val_loss: 0.1747 - val_mae: 0.4180
Epoch 79/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0330 - mae: 0.15
01 - val_loss: 0.1871 - val_mae: 0.4325
Epoch 80/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0321 - mae: 0.14
79 - val_loss: 0.2008 - val_mae: 0.4481
Epoch 81/250
56 - val_loss: 0.2152 - val_mae: 0.4639
Epoch 82/250
1/1 [=========== ] - 0s 36ms/step - loss: 0.0308 - mae: 0.14
32 - val_loss: 0.2297 - val_mae: 0.4792
Epoch 83/250
10 - val_loss: 0.2436 - val_mae: 0.4936
Epoch 84/250
1/1 [============ ] - 0s 59ms/step - loss: 0.0298 - mae: 0.13
88 - val_loss: 0.2565 - val_mae: 0.5064
Epoch 85/250
68 - val_loss: 0.2678 - val_mae: 0.5175
Epoch 86/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0290 - mae: 0.13
50 - val_loss: 0.2773 - val_mae: 0.5266
Epoch 87/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0285 - mae: 0.13
35 - val_loss: 0.2847 - val_mae: 0.5336
Epoch 88/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0281 - mae: 0.13
22 - val_loss: 0.2901 - val_mae: 0.5386
Epoch 89/250
12 - val_loss: 0.2934 - val_mae: 0.5416
Epoch 90/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0271 - mae: 0.13
04 - val_loss: 0.2948 - val_mae: 0.5429
Epoch 91/250
99 - val_loss: 0.2945 - val_mae: 0.5427
Epoch 92/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0260 - mae: 0.12
95 - val_loss: 0.2930 - val_mae: 0.5413
Epoch 93/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0255 - mae: 0.12
92 - val_loss: 0.2906 - val_mae: 0.5391
Epoch 94/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0249 - mae: 0.12
90 - val_loss: 0.2877 - val_mae: 0.5364
Epoch 95/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0245 - mae: 0.12
88 - val loss: 0.2847 - val mae: 0.5336
Epoch 96/250
1/1 [===========] - 0s 41ms/step - loss: 0.0240 - mae: 0.12
85 - val loss: 0.2820 - val mae: 0.5311
Epoch 97/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0236 - mae: 0.12
82 - val loss: 0.2800 - val mae: 0.5292
Epoch 98/250
76 - val loss: 0.2790 - val mae: 0.5282
Epoch 99/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0227 - mae: 0.12
69 - val loss: 0.2792 - val mae: 0.5284
Epoch 100/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0223 - mae: 0.12
60 - val loss: 0.2808 - val mae: 0.5299
Epoch 101/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0219 - mae: 0.12
```

```
49 - val_loss: 0.2839 - val_mae: 0.5329
Epoch 102/250
36 - val_loss: 0.2885 - val_mae: 0.5371
Epoch 103/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0211 - mae: 0.12
23 - val_loss: 0.2944 - val_mae: 0.5426
Epoch 104/250
09 - val_loss: 0.3016 - val_mae: 0.5491
Epoch 105/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0202 - mae: 0.11
95 - val_loss: 0.3096 - val_mae: 0.5564
Epoch 106/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0198 - mae: 0.11
81 - val_loss: 0.3182 - val_mae: 0.5641
Epoch 107/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0194 - mae: 0.11
67 - val_loss: 0.3271 - val_mae: 0.5719
Epoch 108/250
54 - val_loss: 0.3358 - val_mae: 0.5795
Epoch 109/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0186 - mae: 0.11
41 - val_loss: 0.3440 - val_mae: 0.5866
Epoch 110/250
29 - val_loss: 0.3516 - val_mae: 0.5929
Epoch 111/250
17 - val_loss: 0.3582 - val_mae: 0.5985
Epoch 112/250
06 - val_loss: 0.3638 - val_mae: 0.6031
Epoch 113/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0172 - mae: 0.10
95 - val_loss: 0.3682 - val_mae: 0.6068
Epoch 114/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0168 - mae: 0.10
85 - val_loss: 0.3717 - val_mae: 0.6097
Epoch 115/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0165 - mae: 0.10
76 - val_loss: 0.3743 - val_mae: 0.6118
Epoch 116/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0161 - mae: 0.10
66 - val_loss: 0.3762 - val_mae: 0.6134
Epoch 117/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0158 - mae: 0.10
57 - val_loss: 0.3777 - val_mae: 0.6146
Epoch 118/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0154 - mae: 0.10
49 - val loss: 0.3789 - val mae: 0.6155
Epoch 119/250
1/1 [===========] - 0s 42ms/step - loss: 0.0151 - mae: 0.10
40 - val loss: 0.3800 - val mae: 0.6165
Epoch 120/250
31 - val loss: 0.3813 - val mae: 0.6175
Epoch 121/250
1/1 [============ ] - 0s 50ms/step - loss: 0.0144 - mae: 0.10
22 - val loss: 0.3829 - val mae: 0.6188
Epoch 122/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0141 - mae: 0.10
12 - val loss: 0.3850 - val mae: 0.6205
Epoch 123/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0138 - mae: 0.10
02 - val loss: 0.3876 - val mae: 0.6226
Epoch 124/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0135 - mae: 0.09
```

```
91 - val_loss: 0.3908 - val_mae: 0.6251
Epoch 125/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0132 - mae: 0.09
80 - val_loss: 0.3945 - val_mae: 0.6281
Epoch 126/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0129 - mae: 0.09
68 - val_loss: 0.3988 - val_mae: 0.6315
Epoch 127/250
56 - val_loss: 0.4036 - val_mae: 0.6353
Epoch 128/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0123 - mae: 0.09
44 - val_loss: 0.4088 - val_mae: 0.6394
Epoch 129/250
32 - val_loss: 0.4142 - val_mae: 0.6436
Epoch 130/250
1/1 [============ ] - 0s 54ms/step - loss: 0.0117 - mae: 0.09
20 - val_loss: 0.4198 - val_mae: 0.6479
Epoch 131/250
08 - val_loss: 0.4253 - val_mae: 0.6521
Epoch 132/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0111 - mae: 0.08
96 - val_loss: 0.4306 - val_mae: 0.6562
Epoch 133/250
85 - val_loss: 0.4356 - val_mae: 0.6600
Epoch 134/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0106 - mae: 0.08
73 - val_loss: 0.4402 - val_mae: 0.6635
Epoch 135/250
62 - val_loss: 0.4444 - val_mae: 0.6666
Epoch 136/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0101 - mae: 0.08
51 - val_loss: 0.4480 - val_mae: 0.6694
Epoch 137/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0098 - mae: 0.08
40 - val_loss: 0.4512 - val_mae: 0.6717
Epoch 138/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0096 - mae: 0.08
29 - val_loss: 0.4540 - val_mae: 0.6738
Epoch 139/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0093 - mae: 0.08
18 - val_loss: 0.4565 - val_mae: 0.6757
Epoch 140/250
1/1 [============ ] - 0s 63ms/step - loss: 0.0091 - mae: 0.08
07 - val_loss: 0.4588 - val_mae: 0.6774
Epoch 141/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0089 - mae: 0.07
96 - val loss: 0.4611 - val mae: 0.6790
Epoch 142/250
1/1 [===========] - 0s 40ms/step - loss: 0.0086 - mae: 0.07
86 - val loss: 0.4633 - val mae: 0.6807
Epoch 143/250
75 - val loss: 0.4657 - val mae: 0.6824
Epoch 144/250
64 - val loss: 0.4682 - val mae: 0.6842
Epoch 145/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0080 - mae: 0.07
53 - val loss: 0.4709 - val mae: 0.6863
Epoch 146/250
1/1 [=============== ] - 0s 65ms/step - loss: 0.0078 - mae: 0.07
43 - val loss: 0.4739 - val mae: 0.6884
Epoch 147/250
1/1 [=============== ] - 0s 43ms/step - loss: 0.0076 - mae: 0.07
```

```
32 - val_loss: 0.4772 - val_mae: 0.6908
Epoch 148/250
21 - val_loss: 0.4806 - val_mae: 0.6933
Epoch 149/250
11 - val_loss: 0.4842 - val_mae: 0.6958
Epoch 150/250
00 - val_loss: 0.4878 - val_mae: 0.6984
Epoch 151/250
1/1 [=========== ] - 0s 36ms/step - loss: 0.0068 - mae: 0.06
89 - val_loss: 0.4915 - val_mae: 0.7011
Epoch 152/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0066 - mae: 0.06
78 - val_loss: 0.4952 - val_mae: 0.7037
Epoch 153/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0064 - mae: 0.06
68 - val_loss: 0.4988 - val_mae: 0.7062
Epoch 154/250
57 - val_loss: 0.5022 - val_mae: 0.7087
Epoch 155/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0061 - mae: 0.06
46 - val_loss: 0.5055 - val_mae: 0.7110
Epoch 156/250
36 - val_loss: 0.5086 - val_mae: 0.7131
Epoch 157/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0058 - mae: 0.06
26 - val_loss: 0.5115 - val_mae: 0.7152
Epoch 158/250
16 - val_loss: 0.5142 - val_mae: 0.7171
Epoch 159/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0055 - mae: 0.06
06 - val_loss: 0.5167 - val_mae: 0.7188
Epoch 160/250
96 - val_loss: 0.5191 - val_mae: 0.7205
Epoch 161/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0052 - mae: 0.05
87 - val_loss: 0.5213 - val_mae: 0.7220
Epoch 162/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0050 - mae: 0.05
79 - val_loss: 0.5235 - val_mae: 0.7236
Epoch 163/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0049 - mae: 0.05
70 - val_loss: 0.5257 - val_mae: 0.7251
Epoch 164/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0048 - mae: 0.05
62 - val loss: 0.5279 - val mae: 0.7266
Epoch 165/250
1/1 [===========] - 0s 37ms/step - loss: 0.0046 - mae: 0.05
54 - val loss: 0.5301 - val mae: 0.7281
Epoch 166/250
1/1 [=========== ] - 0s 39ms/step - loss: 0.0045 - mae: 0.05
47 - val loss: 0.5324 - val mae: 0.7297
Epoch 167/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0044 - mae: 0.05
40 - val loss: 0.5348 - val mae: 0.7313
Epoch 168/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0043 - mae: 0.05
33 - val loss: 0.5372 - val mae: 0.7329
Epoch 169/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0042 - mae: 0.05
27 - val loss: 0.5396 - val mae: 0.7346
Epoch 170/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0041 - mae: 0.05
```

```
20 - val_loss: 0.5421 - val_mae: 0.7363
Epoch 171/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0040 - mae: 0.05
14 - val_loss: 0.5446 - val_mae: 0.7380
Epoch 172/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0039 - mae: 0.05
07 - val_loss: 0.5471 - val_mae: 0.7396
Epoch 173/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0038 - mae: 0.05
01 - val_loss: 0.5495 - val_mae: 0.7413
Epoch 174/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0037 - mae: 0.04
94 - val_loss: 0.5518 - val_mae: 0.7428
Epoch 175/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0036 - mae: 0.04
88 - val_loss: 0.5541 - val_mae: 0.7444
Epoch 176/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0035 - mae: 0.04
82 - val_loss: 0.5563 - val_mae: 0.7459
Epoch 177/250
76 - val_loss: 0.5584 - val_mae: 0.7473
Epoch 178/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0033 - mae: 0.04
70 - val_loss: 0.5605 - val_mae: 0.7487
Epoch 179/250
65 - val_loss: 0.5625 - val_mae: 0.7500
Epoch 180/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0032 - mae: 0.04
60 - val_loss: 0.5644 - val_mae: 0.7513
Epoch 181/250
55 - val_loss: 0.5662 - val_mae: 0.7525
Epoch 182/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0030 - mae: 0.04
51 - val_loss: 0.5680 - val_mae: 0.7537
Epoch 183/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0030 - mae: 0.04
47 - val_loss: 0.5698 - val_mae: 0.7548
Epoch 184/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0029 - mae: 0.04
43 - val_loss: 0.5715 - val_mae: 0.7560
Epoch 185/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0028 - mae: 0.04
39 - val_loss: 0.5732 - val_mae: 0.7571
Epoch 186/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0028 - mae: 0.04
36 - val_loss: 0.5749 - val_mae: 0.7582
Epoch 187/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0027 - mae: 0.04
32 - val loss: 0.5765 - val mae: 0.7593
Epoch 188/250
1/1 [===========] - 0s 62ms/step - loss: 0.0026 - mae: 0.04
28 - val loss: 0.5782 - val mae: 0.7604
Epoch 189/250
24 - val loss: 0.5798 - val mae: 0.7615
Epoch 190/250
21 - val loss: 0.5815 - val mae: 0.7625
Epoch 191/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0025 - mae: 0.04
17 - val_loss: 0.5831 - val_mae: 0.7636
Epoch 192/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0024 - mae: 0.04
13 - val loss: 0.5847 - val mae: 0.7647
Epoch 193/250
1/1 [=============== ] - 0s 37ms/step - loss: 0.0024 - mae: 0.04
```

```
09 - val_loss: 0.5863 - val_mae: 0.7657
Epoch 194/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0023 - mae: 0.04
06 - val_loss: 0.5878 - val_mae: 0.7667
Epoch 195/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0023 - mae: 0.04
02 - val_loss: 0.5893 - val_mae: 0.7677
Epoch 196/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0022 - mae: 0.03
99 - val_loss: 0.5908 - val_mae: 0.7686
Epoch 197/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0022 - mae: 0.03
95 - val_loss: 0.5922 - val_mae: 0.7695
Epoch 198/250
1/1 [===========] - 0s 36ms/step - loss: 0.0021 - mae: 0.03
92 - val_loss: 0.5936 - val_mae: 0.7704
Epoch 199/250
1/1 [===========] - 0s 42ms/step - loss: 0.0021 - mae: 0.03
89 - val_loss: 0.5949 - val_mae: 0.7713
Epoch 200/250
86 - val_loss: 0.5962 - val_mae: 0.7721
Epoch 201/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0020 - mae: 0.03
82 - val_loss: 0.5974 - val_mae: 0.7729
Epoch 202/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0020 - mae: 0.03
79 - val_loss: 0.5987 - val_mae: 0.7737
Epoch 203/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0020 - mae: 0.03
76 - val_loss: 0.5998 - val_mae: 0.7745
Epoch 204/250
73 - val_loss: 0.6010 - val_mae: 0.7752
Epoch 205/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0019 - mae: 0.03
70 - val_loss: 0.6021 - val_mae: 0.7760
Epoch 206/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0018 - mae: 0.03
67 - val_loss: 0.6032 - val_mae: 0.7767
Epoch 207/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0018 - mae: 0.03
64 - val_loss: 0.6043 - val_mae: 0.7774
Epoch 208/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0018 - mae: 0.03
61 - val_loss: 0.6054 - val_mae: 0.7781
Epoch 209/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0018 - mae: 0.03
58 - val_loss: 0.6064 - val_mae: 0.7787
Epoch 210/250
1/1 [============] - 0s 40ms/step - loss: 0.0017 - mae: 0.03
55 - val loss: 0.6075 - val mae: 0.7794
Epoch 211/250
1/1 [===========] - 0s 37ms/step - loss: 0.0017 - mae: 0.03
52 - val loss: 0.6085 - val mae: 0.7801
Epoch 212/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0017 - mae: 0.03
50 - val loss: 0.6095 - val mae: 0.7807
Epoch 213/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0016 - mae: 0.03
47 - val loss: 0.6105 - val mae: 0.7813
Epoch 214/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0016 - mae: 0.03
44 - val_loss: 0.6114 - val_mae: 0.7819
Epoch 215/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0016 - mae: 0.03
42 - val loss: 0.6124 - val mae: 0.7825
Epoch 216/250
1/1 [=============== ] - 0s 41ms/step - loss: 0.0016 - mae: 0.03
```

```
39 - val_loss: 0.6133 - val_mae: 0.7831
Epoch 217/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0015 - mae: 0.03
36 - val_loss: 0.6141 - val_mae: 0.7837
Epoch 218/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0015 - mae: 0.03
34 - val_loss: 0.6150 - val_mae: 0.7842
Epoch 219/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0015 - mae: 0.03
31 - val_loss: 0.6158 - val_mae: 0.7847
Epoch 220/250
1/1 [=========== ] - 0s 38ms/step - loss: 0.0015 - mae: 0.03
28 - val_loss: 0.6166 - val_mae: 0.7852
Epoch 221/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0014 - mae: 0.03
26 - val_loss: 0.6173 - val_mae: 0.7857
Epoch 222/250
1/1 [===========] - 0s 36ms/step - loss: 0.0014 - mae: 0.03
23 - val_loss: 0.6181 - val_mae: 0.7862
Epoch 223/250
21 - val_loss: 0.6188 - val_mae: 0.7866
Epoch 224/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0014 - mae: 0.03
18 - val_loss: 0.6195 - val_mae: 0.7871
Epoch 225/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0013 - mae: 0.03
16 - val_loss: 0.6202 - val_mae: 0.7875
Epoch 226/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0013 - mae: 0.03
13 - val_loss: 0.6208 - val_mae: 0.7879
Epoch 227/250
11 - val_loss: 0.6215 - val_mae: 0.7883
Epoch 228/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0013 - mae: 0.03
09 - val_loss: 0.6221 - val_mae: 0.7887
Epoch 229/250
06 - val_loss: 0.6227 - val_mae: 0.7891
Epoch 230/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0012 - mae: 0.03
04 - val_loss: 0.6233 - val_mae: 0.7895
Epoch 231/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0012 - mae: 0.03
01 - val_loss: 0.6239 - val_mae: 0.7899
Epoch 232/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0012 - mae: 0.02
99 - val_loss: 0.6245 - val_mae: 0.7903
Epoch 233/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0012 - mae: 0.02
97 - val loss: 0.6251 - val mae: 0.7906
Epoch 234/250
1/1 [===========] - 0s 38ms/step - loss: 0.0012 - mae: 0.02
94 - val loss: 0.6256 - val mae: 0.7910
Epoch 235/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0011 - mae: 0.02
92 - val loss: 0.6261 - val mae: 0.7913
Epoch 236/250
90 - val loss: 0.6266 - val mae: 0.7916
Epoch 237/250
1/1 [============= ] - 0s 71ms/step - loss: 0.0011 - mae: 0.02
87 - val_loss: 0.6271 - val_mae: 0.7919
Epoch 238/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0011 - mae: 0.02
85 - val loss: 0.6276 - val mae: 0.7922
Epoch 239/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0011 - mae: 0.02
```

```
83 - val_loss: 0.6280 - val_mae: 0.7925
Epoch 240/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0011 - mae: 0.02
80 - val_loss: 0.6285 - val_mae: 0.7928
Epoch 241/250
78 - val_loss: 0.6289 - val_mae: 0.7930
Epoch 242/250
76 - val_loss: 0.6293 - val_mae: 0.7933
Epoch 243/250
1/1 [============ ] - 0s 42ms/step - loss: 0.0010 - mae: 0.02
74 - val_loss: 0.6297 - val_mae: 0.7935
Epoch 244/250
0.0271 - val_loss: 0.6301 - val_mae: 0.7938
Epoch 245/250
0.0269 - val_loss: 0.6305 - val_mae: 0.7940
Epoch 246/250
0.0267 - val_loss: 0.6309 - val_mae: 0.7943
Epoch 247/250
0.0265 - val_loss: 0.6312 - val_mae: 0.7945
Epoch 248/250
1/1 [============== ] - 0s 48ms/step - loss: 9.3363e-04 - mae:
0.0263 - val_loss: 0.6316 - val_mae: 0.7947
Epoch 249/250
1/1 [============== ] - 0s 40ms/step - loss: 9.1916e-04 - mae:
0.0261 - val_loss: 0.6319 - val_mae: 0.7949
Epoch 250/250
1/1 [============== ] - 0s 36ms/step - loss: 9.0490e-04 - mae:
0.0259 - val_loss: 0.6322 - val_mae: 0.7951
Epoch 1/250
1/1 [============== ] - 1s 660ms/step - loss: 11.8818 - mae: 3.
4268 - val_loss: 7.9966 - val_mae: 2.8278
Epoch 2/250
1/1 [============== ] - 0s 38ms/step - loss: 11.3430 - mae: 3.3
481 - val_loss: 7.7490 - val_mae: 2.7837
Epoch 3/250
1/1 [============== ] - 0s 40ms/step - loss: 10.8164 - mae: 3.2
692 - val_loss: 7.4529 - val_mae: 2.7300
Epoch 4/250
1/1 [============== ] - 0s 36ms/step - loss: 10.2991 - mae: 3.1
893 - val_loss: 7.1309 - val_mae: 2.6704
Epoch 5/250
1/1 [============= ] - 0s 36ms/step - loss: 9.7938 - mae: 3.10
85 - val_loss: 6.7953 - val_mae: 2.6068
Epoch 6/250
1/1 [============] - 0s 58ms/step - loss: 9.3039 - mae: 3.02
72 - val loss: 6.4539 - val mae: 2.5405
Epoch 7/250
1/1 [===========] - 0s 40ms/step - loss: 8.8297 - mae: 2.94
53 - val loss: 6.1105 - val mae: 2.4720
Epoch 8/250
1/1 [============= ] - 0s 36ms/step - loss: 8.3690 - mae: 2.86
22 - val loss: 5.7690 - val mae: 2.4019
Epoch 9/250
1/1 [============ ] - 0s 34ms/step - loss: 7.9177 - mae: 2.77
70 - val loss: 5.4315 - val mae: 2.3306
Epoch 10/250
1/1 [============= ] - 0s 33ms/step - loss: 7.4734 - mae: 2.68
86 - val loss: 5.0989 - val mae: 2.2581
Epoch 11/250
1/1 [============== ] - 0s 38ms/step - loss: 7.0344 - mae: 2.59
62 - val loss: 4.7759 - val mae: 2.1854
Epoch 12/250
1/1 [=============== ] - 0s 38ms/step - loss: 6.5985 - mae: 2.49
```

```
82 - val_loss: 4.4734 - val_mae: 2.1150
Epoch 13/250
30 - val_loss: 4.2078 - val_mae: 2.0513
Epoch 14/250
89 - val_loss: 3.9834 - val_mae: 1.9959
Epoch 15/250
54 - val_loss: 3.8044 - val_mae: 1.9505
Epoch 16/250
11 - val_loss: 3.6750 - val_mae: 1.9170
Epoch 17/250
58 - val_loss: 3.5913 - val_mae: 1.8951
Epoch 18/250
59 - val_loss: 3.5449 - val_mae: 1.8828
Epoch 19/250
72 - val_loss: 3.5139 - val_mae: 1.8745
Epoch 20/250
1/1 [============= ] - 0s 36ms/step - loss: 3.4975 - mae: 1.52
28 - val_loss: 3.4612 - val_mae: 1.8604
Epoch 21/250
1/1 [============] - 0s 69ms/step - loss: 3.2638 - mae: 1.45
47 - val_loss: 3.3544 - val_mae: 1.8315
Epoch 22/250
31 - val_loss: 3.1699 - val_mae: 1.7804
Epoch 23/250
52 - val_loss: 2.9040 - val_mae: 1.7041
Epoch 24/250
1/1 [============== ] - 0s 41ms/step - loss: 2.8460 - mae: 1.36
80 - val_loss: 2.5712 - val_mae: 1.6035
Epoch 25/250
86 - val_loss: 2.1948 - val_mae: 1.4815
Epoch 26/250
1/1 [============== ] - 0s 63ms/step - loss: 2.6072 - mae: 1.31
85 - val_loss: 1.7999 - val_mae: 1.3416
Epoch 27/250
1/1 [============== ] - 0s 40ms/step - loss: 2.4323 - mae: 1.27
46 - val_loss: 1.4158 - val_mae: 1.1899
Epoch 28/250
41 - val_loss: 1.0872 - val_mae: 1.0427
Epoch 29/250
43 - val loss: 0.8221 - val mae: 0.9067
Epoch 30/250
1/1 [===========] - 0s 39ms/step - loss: 1.6902 - mae: 1.04
30 - val loss: 0.6110 - val mae: 0.7816
Epoch 31/250
1/1 [============ ] - 0s 38ms/step - loss: 1.4472 - mae: 0.94
89 - val loss: 0.4424 - val mae: 0.6651
Epoch 32/250
17 - val loss: 0.3057 - val mae: 0.5529
Epoch 33/250
1/1 [============= ] - 0s 74ms/step - loss: 0.9946 - mae: 0.74
88 - val loss: 0.1976 - val mae: 0.4445
Epoch 34/250
1/1 [============== ] - 0s 41ms/step - loss: 0.7780 - mae: 0.64
22 - val loss: 0.1153 - val mae: 0.3396
Epoch 35/250
1/1 [=============== ] - 0s 38ms/step - loss: 0.5945 - mae: 0.54
```

```
35 - val_loss: 0.0568 - val_mae: 0.2383
Epoch 36/250
1/1 [============= ] - 0s 61ms/step - loss: 0.4521 - mae: 0.45
89 - val_loss: 0.0196 - val_mae: 0.1399
Epoch 37/250
1/1 [============= ] - 0s 34ms/step - loss: 0.3452 - mae: 0.40
09 - val_loss: 0.0020 - val_mae: 0.0443
Epoch 38/250
1/1 [============ ] - 0s 36ms/step - loss: 0.2683 - mae: 0.35
55 - val_loss: 0.0024 - val_mae: 0.0487
Epoch 39/250
1/1 [============= ] - 0s 39ms/step - loss: 0.2167 - mae: 0.32
92 - val_loss: 0.0194 - val_mae: 0.1391
Epoch 40/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1852 - mae: 0.31
62 - val_loss: 0.0512 - val_mae: 0.2264
Epoch 41/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1686 - mae: 0.31
25 - val_loss: 0.0959 - val_mae: 0.3096
Epoch 42/250
09 - val_loss: 0.1504 - val_mae: 0.3878
Epoch 43/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1613 - mae: 0.31
38 - val_loss: 0.2112 - val_mae: 0.4595
Epoch 44/250
1/1 [============ ] - 0s 36ms/step - loss: 0.1648 - mae: 0.32
28 - val_loss: 0.2740 - val_mae: 0.5235
Epoch 45/250
1/1 [============ ] - 0s 38ms/step - loss: 0.1699 - mae: 0.33
29 - val_loss: 0.3344 - val_mae: 0.5782
Epoch 46/250
86 - val_loss: 0.3879 - val_mae: 0.6229
Epoch 47/250
1/1 [============== ] - 0s 33ms/step - loss: 0.1780 - mae: 0.35
07 - val_loss: 0.4312 - val_mae: 0.6566
Epoch 48/250
63 - val_loss: 0.4617 - val_mae: 0.6795
Epoch 49/250
1/1 [============== ] - 0s 36ms/step - loss: 0.1753 - mae: 0.35
60 - val_loss: 0.4786 - val_mae: 0.6918
Epoch 50/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1690 - mae: 0.35
23 - val_loss: 0.4823 - val_mae: 0.6945
Epoch 51/250
1/1 [============= ] - 0s 40ms/step - loss: 0.1604 - mae: 0.34
41 - val_loss: 0.4742 - val_mae: 0.6887
Epoch 52/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1502 - mae: 0.33
33 - val loss: 0.4569 - val mae: 0.6759
Epoch 53/250
1/1 [===========] - 0s 41ms/step - loss: 0.1397 - mae: 0.31
96 - val loss: 0.4329 - val mae: 0.6580
Epoch 54/250
71 - val loss: 0.4050 - val mae: 0.6364
Epoch 55/250
33 - val loss: 0.3755 - val mae: 0.6128
Epoch 56/250
1/1 [============= ] - 0s 33ms/step - loss: 0.1128 - mae: 0.27
91 - val loss: 0.3464 - val mae: 0.5885
Epoch 57/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1066 - mae: 0.26
80 - val loss: 0.3189 - val mae: 0.5647
Epoch 58/250
1/1 [============== ] - 0s 40ms/step - loss: 0.1016 - mae: 0.25
```

```
71 - val_loss: 0.2941 - val_mae: 0.5423
Epoch 59/250
05 - val_loss: 0.2723 - val_mae: 0.5218
Epoch 60/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0943 - mae: 0.24
50 - val_loss: 0.2536 - val_mae: 0.5036
Epoch 61/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0914 - mae: 0.24
25 - val_loss: 0.2379 - val_mae: 0.4878
Epoch 62/250
01 - val_loss: 0.2248 - val_mae: 0.4742
Epoch 63/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0864 - mae: 0.23
72 - val_loss: 0.2139 - val_mae: 0.4625
Epoch 64/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0843 - mae: 0.23
44 - val_loss: 0.2047 - val_mae: 0.4524
Epoch 65/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0824 - mae: 0.23
12 - val loss: 0.1966 - val mae: 0.4434
Epoch 66/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0808 - mae: 0.22
84 - val_loss: 0.1893 - val_mae: 0.4351
Epoch 67/250
66 - val_loss: 0.1822 - val_mae: 0.4269
Epoch 68/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0785 - mae: 0.22
52 - val_loss: 0.1752 - val_mae: 0.4186
Epoch 69/250
42 - val_loss: 0.1680 - val_mae: 0.4098
Epoch 70/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0768 - mae: 0.22
28 - val_loss: 0.1604 - val_mae: 0.4005
Epoch 71/250
10 - val_loss: 0.1526 - val_mae: 0.3906
Epoch 72/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0752 - mae: 0.21
87 - val_loss: 0.1446 - val_mae: 0.3803
Epoch 73/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0742 - mae: 0.21
57 - val_loss: 0.1366 - val_mae: 0.3697
Epoch 74/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0732 - mae: 0.21
22 - val_loss: 0.1290 - val_mae: 0.3591
Epoch 75/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0722 - mae: 0.20
99 - val loss: 0.1218 - val mae: 0.3490
Epoch 76/250
1/1 [===========] - 0s 39ms/step - loss: 0.0712 - mae: 0.20
76 - val loss: 0.1154 - val mae: 0.3396
Epoch 77/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0703 - mae: 0.20
54 - val loss: 0.1099 - val mae: 0.3315
Epoch 78/250
33 - val loss: 0.1055 - val mae: 0.3248
Epoch 79/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0688 - mae: 0.20
18 - val loss: 0.1024 - val mae: 0.3199
Epoch 80/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0682 - mae: 0.20
09 - val loss: 0.1005 - val mae: 0.3170
Epoch 81/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0677 - mae: 0.20
```

```
00 - val_loss: 0.0999 - val_mae: 0.3160
Epoch 82/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0672 - mae: 0.19
92 - val_loss: 0.1005 - val_mae: 0.3171
Epoch 83/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0666 - mae: 0.19
83 - val_loss: 0.1024 - val_mae: 0.3200
Epoch 84/250
75 - val_loss: 0.1054 - val_mae: 0.3246
Epoch 85/250
1/1 [============ ] - 0s 42ms/step - loss: 0.0654 - mae: 0.19
68 - val_loss: 0.1093 - val_mae: 0.3307
Epoch 86/250
61 - val_loss: 0.1141 - val_mae: 0.3378
Epoch 87/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0641 - mae: 0.19
60 - val_loss: 0.1194 - val_mae: 0.3455
Epoch 88/250
58 - val_loss: 0.1251 - val_mae: 0.3536
Epoch 89/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0628 - mae: 0.19
56 - val_loss: 0.1308 - val_mae: 0.3617
Epoch 90/250
53 - val_loss: 0.1364 - val_mae: 0.3693
Epoch 91/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0617 - mae: 0.19
48 - val_loss: 0.1415 - val_mae: 0.3762
Epoch 92/250
42 - val_loss: 0.1461 - val_mae: 0.3822
Epoch 93/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0606 - mae: 0.19
34 - val_loss: 0.1498 - val_mae: 0.3871
Epoch 94/250
25 - val_loss: 0.1528 - val_mae: 0.3909
Epoch 95/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0596 - mae: 0.19
14 - val_loss: 0.1549 - val_mae: 0.3935
Epoch 96/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0592 - mae: 0.19
05 - val_loss: 0.1561 - val_mae: 0.3951
Epoch 97/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0587 - mae: 0.19
03 - val_loss: 0.1565 - val_mae: 0.3956
Epoch 98/250
1/1 [============] - 0s 41ms/step - loss: 0.0583 - mae: 0.19
01 - val loss: 0.1564 - val mae: 0.3954
Epoch 99/250
1/1 [===========] - 0s 37ms/step - loss: 0.0579 - mae: 0.18
99 - val loss: 0.1557 - val mae: 0.3945
Epoch 100/250
95 - val loss: 0.1546 - val mae: 0.3932
Epoch 101/250
91 - val loss: 0.1533 - val mae: 0.3915
Epoch 102/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0568 - mae: 0.18
86 - val loss: 0.1518 - val mae: 0.3896
Epoch 103/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0564 - mae: 0.18
80 - val loss: 0.1503 - val mae: 0.3876
Epoch 104/250
1/1 [=============== ] - 0s 41ms/step - loss: 0.0561 - mae: 0.18
```

```
73 - val_loss: 0.1487 - val_mae: 0.3856
Epoch 105/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0557 - mae: 0.18
65 - val_loss: 0.1471 - val_mae: 0.3836
Epoch 106/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0553 - mae: 0.18
57 - val_loss: 0.1456 - val_mae: 0.3816
Epoch 107/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0550 - mae: 0.18
48 - val_loss: 0.1440 - val_mae: 0.3795
Epoch 108/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0546 - mae: 0.18
38 - val_loss: 0.1424 - val_mae: 0.3774
Epoch 109/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0542 - mae: 0.18
30 - val_loss: 0.1407 - val_mae: 0.3751
Epoch 110/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0538 - mae: 0.18
23 - val_loss: 0.1390 - val_mae: 0.3728
Epoch 111/250
16 - val_loss: 0.1370 - val_mae: 0.3702
Epoch 112/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0530 - mae: 0.18
08 - val_loss: 0.1350 - val_mae: 0.3674
Epoch 113/250
01 - val_loss: 0.1329 - val_mae: 0.3645
Epoch 114/250
93 - val_loss: 0.1306 - val_mae: 0.3614
Epoch 115/250
85 - val_loss: 0.1283 - val_mae: 0.3582
Epoch 116/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0515 - mae: 0.17
78 - val_loss: 0.1260 - val_mae: 0.3549
Epoch 117/250
70 - val_loss: 0.1237 - val_mae: 0.3517
Epoch 118/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0508 - mae: 0.17
63 - val_loss: 0.1215 - val_mae: 0.3486
Epoch 119/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0505 - mae: 0.17
56 - val_loss: 0.1194 - val_mae: 0.3456
Epoch 120/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0501 - mae: 0.17
49 - val_loss: 0.1176 - val_mae: 0.3429
Epoch 121/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0498 - mae: 0.17
42 - val loss: 0.1159 - val mae: 0.3405
Epoch 122/250
1/1 [===========] - 0s 62ms/step - loss: 0.0494 - mae: 0.17
35 - val loss: 0.1145 - val mae: 0.3383
Epoch 123/250
28 - val loss: 0.1132 - val mae: 0.3365
Epoch 124/250
22 - val loss: 0.1122 - val mae: 0.3350
Epoch 125/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0484 - mae: 0.17
16 - val_loss: 0.1114 - val_mae: 0.3337
Epoch 126/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0481 - mae: 0.17
10 - val loss: 0.1107 - val mae: 0.3327
Epoch 127/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0477 - mae: 0.17
```

```
04 - val_loss: 0.1101 - val_mae: 0.3318
Epoch 128/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0474 - mae: 0.16
98 - val_loss: 0.1096 - val_mae: 0.3311
Epoch 129/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0470 - mae: 0.16
92 - val_loss: 0.1091 - val_mae: 0.3303
Epoch 130/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0467 - mae: 0.16
87 - val_loss: 0.1086 - val_mae: 0.3296
Epoch 131/250
1/1 [=========== ] - 0s 50ms/step - loss: 0.0464 - mae: 0.16
81 - val_loss: 0.1081 - val_mae: 0.3287
Epoch 132/250
76 - val_loss: 0.1075 - val_mae: 0.3278
Epoch 133/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0457 - mae: 0.16
70 - val_loss: 0.1068 - val_mae: 0.3267
Epoch 134/250
65 - val_loss: 0.1060 - val_mae: 0.3255
Epoch 135/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0450 - mae: 0.16
59 - val_loss: 0.1051 - val_mae: 0.3242
Epoch 136/250
54 - val_loss: 0.1041 - val_mae: 0.3227
Epoch 137/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0444 - mae: 0.16
48 - val_loss: 0.1032 - val_mae: 0.3212
Epoch 138/250
42 - val_loss: 0.1021 - val_mae: 0.3196
Epoch 139/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0437 - mae: 0.16
36 - val_loss: 0.1011 - val_mae: 0.3179
Epoch 140/250
30 - val_loss: 0.1000 - val_mae: 0.3163
Epoch 141/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0431 - mae: 0.16
24 - val_loss: 0.0990 - val_mae: 0.3146
Epoch 142/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0428 - mae: 0.16
18 - val_loss: 0.0980 - val_mae: 0.3130
Epoch 143/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0424 - mae: 0.16
11 - val_loss: 0.0970 - val_mae: 0.3114
Epoch 144/250
05 - val loss: 0.0960 - val mae: 0.3099
Epoch 145/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0418 - mae: 0.15
99 - val loss: 0.0951 - val mae: 0.3083
Epoch 146/250
1/1 [============= ] - 0s 67ms/step - loss: 0.0415 - mae: 0.15
93 - val loss: 0.0941 - val mae: 0.3068
Epoch 147/250
86 - val loss: 0.0932 - val mae: 0.3052
Epoch 148/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0409 - mae: 0.15
80 - val loss: 0.0922 - val mae: 0.3036
Epoch 149/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0406 - mae: 0.15
74 - val loss: 0.0912 - val mae: 0.3019
Epoch 150/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0403 - mae: 0.15
```

```
67 - val_loss: 0.0901 - val_mae: 0.3002
Epoch 151/250
1/1 [============= ] - 0s 51ms/step - loss: 0.0400 - mae: 0.15
60 - val_loss: 0.0890 - val_mae: 0.2984
Epoch 152/250
54 - val_loss: 0.0879 - val_mae: 0.2965
Epoch 153/250
47 - val_loss: 0.0867 - val_mae: 0.2945
Epoch 154/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0391 - mae: 0.15
40 - val_loss: 0.0855 - val_mae: 0.2924
Epoch 155/250
33 - val_loss: 0.0843 - val_mae: 0.2903
Epoch 156/250
1/1 [============ ] - 0s 52ms/step - loss: 0.0385 - mae: 0.15
27 - val_loss: 0.0830 - val_mae: 0.2881
Epoch 157/250
20 - val_loss: 0.0817 - val_mae: 0.2859
Epoch 158/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0379 - mae: 0.15
13 - val_loss: 0.0805 - val_mae: 0.2837
Epoch 159/250
07 - val_loss: 0.0792 - val_mae: 0.2814
Epoch 160/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0373 - mae: 0.15
01 - val_loss: 0.0779 - val_mae: 0.2792
Epoch 161/250
94 - val_loss: 0.0767 - val_mae: 0.2769
Epoch 162/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0367 - mae: 0.14
88 - val_loss: 0.0754 - val_mae: 0.2746
Epoch 163/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0364 - mae: 0.14
81 - val_loss: 0.0742 - val_mae: 0.2724
Epoch 164/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0361 - mae: 0.14
75 - val_loss: 0.0730 - val_mae: 0.2701
Epoch 165/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0359 - mae: 0.14
69 - val_loss: 0.0717 - val_mae: 0.2678
Epoch 166/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0356 - mae: 0.14
63 - val_loss: 0.0705 - val_mae: 0.2655
Epoch 167/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0353 - mae: 0.14
56 - val loss: 0.0693 - val mae: 0.2632
Epoch 168/250
1/1 [===========] - 0s 39ms/step - loss: 0.0350 - mae: 0.14
50 - val loss: 0.0680 - val mae: 0.2608
Epoch 169/250
44 - val loss: 0.0668 - val mae: 0.2585
Epoch 170/250
38 - val loss: 0.0656 - val mae: 0.2561
Epoch 171/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0342 - mae: 0.14
31 - val loss: 0.0643 - val mae: 0.2537
Epoch 172/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0339 - mae: 0.14
25 - val loss: 0.0631 - val mae: 0.2513
Epoch 173/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0337 - mae: 0.14
```

```
18 - val_loss: 0.0619 - val_mae: 0.2488
Epoch 174/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0334 - mae: 0.14
12 - val_loss: 0.0607 - val_mae: 0.2464
Epoch 175/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0331 - mae: 0.14
05 - val_loss: 0.0595 - val_mae: 0.2440
Epoch 176/250
99 - val_loss: 0.0584 - val_mae: 0.2416
Epoch 177/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0326 - mae: 0.13
92 - val_loss: 0.0572 - val_mae: 0.2392
Epoch 178/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0324 - mae: 0.13
85 - val_loss: 0.0561 - val_mae: 0.2368
Epoch 179/250
1/1 [===========] - 0s 39ms/step - loss: 0.0321 - mae: 0.13
78 - val_loss: 0.0550 - val_mae: 0.2344
Epoch 180/250
72 - val_loss: 0.0538 - val_mae: 0.2320
Epoch 181/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0316 - mae: 0.13
65 - val_loss: 0.0527 - val_mae: 0.2297
Epoch 182/250
60 - val_loss: 0.0516 - val_mae: 0.2273
Epoch 183/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0311 - mae: 0.13
55 - val_loss: 0.0506 - val_mae: 0.2248
Epoch 184/250
50 - val_loss: 0.0495 - val_mae: 0.2224
Epoch 185/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0306 - mae: 0.13
46 - val_loss: 0.0484 - val_mae: 0.2199
Epoch 186/250
41 - val_loss: 0.0473 - val_mae: 0.2174
Epoch 187/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0301 - mae: 0.13
36 - val_loss: 0.0462 - val_mae: 0.2149
Epoch 188/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0299 - mae: 0.13
31 - val_loss: 0.0451 - val_mae: 0.2123
Epoch 189/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0297 - mae: 0.13
26 - val_loss: 0.0440 - val_mae: 0.2097
Epoch 190/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0294 - mae: 0.13
21 - val loss: 0.0429 - val mae: 0.2071
Epoch 191/250
1/1 [============ ] - 0s 46ms/step - loss: 0.0292 - mae: 0.13
17 - val loss: 0.0418 - val mae: 0.2045
Epoch 192/250
12 - val loss: 0.0407 - val mae: 0.2018
Epoch 193/250
07 - val loss: 0.0397 - val mae: 0.1992
Epoch 194/250
1/1 [============ ] - 0s 46ms/step - loss: 0.0285 - mae: 0.13
02 - val loss: 0.0386 - val mae: 0.1965
Epoch 195/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0283 - mae: 0.12
97 - val loss: 0.0376 - val mae: 0.1938
Epoch 196/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0281 - mae: 0.12
```

```
92 - val_loss: 0.0365 - val_mae: 0.1911
Epoch 197/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0279 - mae: 0.12
87 - val_loss: 0.0355 - val_mae: 0.1885
Epoch 198/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0277 - mae: 0.12
82 - val_loss: 0.0345 - val_mae: 0.1858
Epoch 199/250
77 - val_loss: 0.0335 - val_mae: 0.1831
Epoch 200/250
1/1 [============ ] - 0s 46ms/step - loss: 0.0273 - mae: 0.12
72 - val_loss: 0.0326 - val_mae: 0.1805
Epoch 201/250
1/1 [============] - 0s 48ms/step - loss: 0.0270 - mae: 0.12
67 - val_loss: 0.0316 - val_mae: 0.1779
Epoch 202/250
1/1 [============ ] - 0s 67ms/step - loss: 0.0268 - mae: 0.12
62 - val_loss: 0.0307 - val_mae: 0.1753
Epoch 203/250
57 - val_loss: 0.0298 - val_mae: 0.1727
Epoch 204/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0264 - mae: 0.12
52 - val_loss: 0.0289 - val_mae: 0.1701
Epoch 205/250
47 - val_loss: 0.0281 - val_mae: 0.1675
Epoch 206/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0260 - mae: 0.12
42 - val_loss: 0.0272 - val_mae: 0.1649
Epoch 207/250
37 - val_loss: 0.0264 - val_mae: 0.1624
Epoch 208/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0257 - mae: 0.12
32 - val_loss: 0.0256 - val_mae: 0.1599
Epoch 209/250
27 - val_loss: 0.0248 - val_mae: 0.1574
Epoch 210/250
1/1 [============== ] - 0s 49ms/step - loss: 0.0253 - mae: 0.12
22 - val_loss: 0.0240 - val_mae: 0.1549
Epoch 211/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0251 - mae: 0.12
17 - val_loss: 0.0232 - val_mae: 0.1525
Epoch 212/250
1/1 [============= ] - 0s 47ms/step - loss: 0.0249 - mae: 0.12
11 - val_loss: 0.0225 - val_mae: 0.1500
Epoch 213/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0247 - mae: 0.12
06 - val loss: 0.0218 - val mae: 0.1476
Epoch 214/250
1/1 [===========] - 0s 41ms/step - loss: 0.0245 - mae: 0.12
01 - val loss: 0.0211 - val mae: 0.1452
Epoch 215/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0244 - mae: 0.11
96 - val loss: 0.0204 - val mae: 0.1428
Epoch 216/250
91 - val loss: 0.0197 - val mae: 0.1404
Epoch 217/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0240 - mae: 0.11
86 - val loss: 0.0191 - val mae: 0.1381
Epoch 218/250
1/1 [=============== ] - 0s 43ms/step - loss: 0.0238 - mae: 0.11
81 - val loss: 0.0184 - val mae: 0.1357
Epoch 219/250
1/1 [=============== ] - 0s 42ms/step - loss: 0.0237 - mae: 0.11
```

```
76 - val_loss: 0.0178 - val_mae: 0.1334
Epoch 220/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0235 - mae: 0.11
70 - val_loss: 0.0172 - val_mae: 0.1310
Epoch 221/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0233 - mae: 0.11
65 - val_loss: 0.0166 - val_mae: 0.1287
Epoch 222/250
60 - val_loss: 0.0160 - val_mae: 0.1264
Epoch 223/250
1/1 [============ ] - 0s 42ms/step - loss: 0.0230 - mae: 0.11
55 - val_loss: 0.0154 - val_mae: 0.1242
Epoch 224/250
50 - val_loss: 0.0149 - val_mae: 0.1219
Epoch 225/250
s 34ms/step - loss: 0.0226 - mae: 0.1144 - val loss: 0.0143 - val mae: 0.1196
Epoch 226/250
39 - val_loss: 0.0138 - val_mae: 0.1174
Epoch 227/250
1/1 [============== ] - 0s 69ms/step - loss: 0.0223 - mae: 0.11
34 - val_loss: 0.0133 - val_mae: 0.1152
Epoch 228/250
29 - val_loss: 0.0128 - val_mae: 0.1130
Epoch 229/250
1/1 [=============== ] - 0s 43ms/step - loss: 0.0220 - mae: 0.11
26 - val_loss: 0.0123 - val_mae: 0.1109
Epoch 230/250
24 - val_loss: 0.0118 - val_mae: 0.1087
Epoch 231/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0217 - mae: 0.11
22 - val_loss: 0.0114 - val_mae: 0.1066
Epoch 232/250
19 - val_loss: 0.0109 - val_mae: 0.1045
Epoch 233/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0214 - mae: 0.11
17 - val_loss: 0.0105 - val_mae: 0.1024
Epoch 234/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0212 - mae: 0.11
14 - val_loss: 0.0101 - val_mae: 0.1004
Epoch 235/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0211 - mae: 0.11
12 - val_loss: 0.0097 - val_mae: 0.0984
Epoch 236/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0209 - mae: 0.11
09 - val loss: 0.0093 - val mae: 0.0963
Epoch 237/250
1/1 [===========] - 0s 69ms/step - loss: 0.0207 - mae: 0.11
07 - val loss: 0.0089 - val mae: 0.0944
Epoch 238/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0206 - mae: 0.11
04 - val loss: 0.0085 - val mae: 0.0924
Epoch 239/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0204 - mae: 0.11
02 - val loss: 0.0082 - val mae: 0.0904
Epoch 240/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0203 - mae: 0.10
99 - val loss: 0.0078 - val mae: 0.0885
Epoch 241/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0201 - mae: 0.10
96 - val loss: 0.0075 - val mae: 0.0866
Epoch 242/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0200 - mae: 0.10
```

```
93 - val_loss: 0.0072 - val_mae: 0.0847
Epoch 243/250
91 - val_loss: 0.0069 - val_mae: 0.0829
Epoch 244/250
88 - val_loss: 0.0066 - val_mae: 0.0810
Epoch 245/250
85 - val_loss: 0.0063 - val_mae: 0.0792
Epoch 246/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0194 - mae: 0.10
82 - val_loss: 0.0060 - val_mae: 0.0774
Epoch 247/250
79 - val_loss: 0.0057 - val_mae: 0.0756
Epoch 248/250
1/1 [============ ] - 0s 42ms/step - loss: 0.0191 - mae: 0.10
76 - val_loss: 0.0055 - val_mae: 0.0739
Epoch 249/250
72 - val_loss: 0.0052 - val_mae: 0.0721
Epoch 250/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0188 - mae: 0.10
69 - val_loss: 0.0050 - val_mae: 0.0704
Epoch 1/250
7 - val_loss: 10.5792 - val_mae: 3.2526
Epoch 2/250
1/1 [============== ] - 0s 41ms/step - loss: 11.4115 - mae: 3.3
521 - val_loss: 10.0354 - val_mae: 3.1679
Epoch 3/250
1/1 [============== ] - 0s 43ms/step - loss: 10.8971 - mae: 3.2
728 - val_loss: 9.5325 - val_mae: 3.0875
Epoch 4/250
1/1 [============== ] - 0s 38ms/step - loss: 10.4076 - mae: 3.1
956 - val_loss: 9.0875 - val_mae: 3.0145
Epoch 5/250
1/1 [============== ] - 0s 39ms/step - loss: 9.9387 - mae: 3.12
03 - val_loss: 8.6780 - val_mae: 2.9458
Epoch 6/250
1/1 [============== ] - 0s 42ms/step - loss: 9.4901 - mae: 3.04
66 - val_loss: 8.2937 - val_mae: 2.8799
Epoch 7/250
1/1 [============== ] - 0s 40ms/step - loss: 9.0591 - mae: 2.97
44 - val_loss: 7.9204 - val_mae: 2.8143
Epoch 8/250
33 - val_loss: 7.5509 - val_mae: 2.7479
Epoch 9/250
34 - val loss: 7.1843 - val mae: 2.6804
Epoch 10/250
1/1 [============= ] - 0s 43ms/step - loss: 7.8632 - mae: 2.76
50 - val loss: 6.8226 - val mae: 2.6120
Epoch 11/250
1/1 [============= ] - 0s 38ms/step - loss: 7.4981 - mae: 2.69
81 - val loss: 6.4683 - val mae: 2.5433
Epoch 12/250
26 - val loss: 6.1233 - val mae: 2.4745
Epoch 13/250
1/1 [============== ] - 0s 44ms/step - loss: 6.8119 - mae: 2.56
83 - val loss: 5.7886 - val mae: 2.4060
Epoch 14/250
51 - val loss: 5.4642 - val mae: 2.3376
Epoch 15/250
```

```
28 - val_loss: 5.1497 - val_mae: 2.2693
Epoch 16/250
10 - val_loss: 4.8451 - val_mae: 2.2012
Epoch 17/250
05 - val_loss: 4.5527 - val_mae: 2.1337
Epoch 18/250
22 - val_loss: 4.2777 - val_mae: 2.0683
Epoch 19/250
70 - val_loss: 4.0234 - val_mae: 2.0058
Epoch 20/250
53 - val_loss: 3.7912 - val_mae: 1.9471
Epoch 21/250
70 - val_loss: 3.5809 - val_mae: 1.8923
Epoch 22/250
18 - val_loss: 3.3911 - val_mae: 1.8415
Epoch 23/250
1/1 [=============== ] - 0s 44ms/step - loss: 4.2417 - mae: 2.01
95 - val_loss: 3.2197 - val_mae: 1.7944
Epoch 24/250
96 - val_loss: 3.0645 - val_mae: 1.7506
Epoch 25/250
1/1 [============== ] - 0s 58ms/step - loss: 3.9327 - mae: 1.94
18 - val_loss: 2.9226 - val_mae: 1.7096
Epoch 26/250
57 - val_loss: 2.7919 - val_mae: 1.6709
Epoch 27/250
1/1 [============== ] - 0s 43ms/step - loss: 3.6620 - mae: 1.87
08 - val_loss: 2.6703 - val_mae: 1.6341
Epoch 28/250
70 - val_loss: 2.5562 - val_mae: 1.5988
Epoch 29/250
1/1 [============== ] - 0s 54ms/step - loss: 3.4170 - mae: 1.80
41 - val_loss: 2.4484 - val_mae: 1.5647
Epoch 30/250
1/1 [============== ] - 0s 44ms/step - loss: 3.3017 - mae: 1.77
18 - val_loss: 2.3458 - val_mae: 1.5316
Epoch 31/250
00 - val_loss: 2.2478 - val_mae: 1.4993
Epoch 32/250
88 - val loss: 2.1538 - val mae: 1.4676
Epoch 33/250
1/1 [============= ] - 0s 66ms/step - loss: 2.9784 - mae: 1.67
79 - val loss: 2.0633 - val mae: 1.4364
Epoch 34/250
1/1 [============= ] - 0s 40ms/step - loss: 2.8770 - mae: 1.64
74 - val loss: 1.9762 - val mae: 1.4058
Epoch 35/250
72 - val loss: 1.8921 - val mae: 1.3755
Epoch 36/250
1/1 [============= ] - 0s 43ms/step - loss: 2.6830 - mae: 1.58
74 - val loss: 1.8109 - val mae: 1.3457
Epoch 37/250
1/1 [============== ] - 0s 41ms/step - loss: 2.5902 - mae: 1.55
78 - val loss: 1.7324 - val mae: 1.3162
Epoch 38/250
1/1 [============= ] - 0s 40ms/step - loss: 2.4999 - mae: 1.52
```

```
86 - val_loss: 1.6565 - val_mae: 1.2871
Epoch 39/250
96 - val_loss: 1.5832 - val_mae: 1.2583
Epoch 40/250
10 - val_loss: 1.5124 - val_mae: 1.2298
Epoch 41/250
26 - val_loss: 1.4439 - val_mae: 1.2016
Epoch 42/250
46 - val_loss: 1.3778 - val_mae: 1.1738
Epoch 43/250
68 - val_loss: 1.3140 - val_mae: 1.1463
Epoch 44/250
93 - val_loss: 1.2524 - val_mae: 1.1191
Epoch 45/250
22 - val_loss: 1.1930 - val_mae: 1.0922
Epoch 46/250
1/1 [============== ] - 0s 50ms/step - loss: 1.8676 - mae: 1.30
54 - val_loss: 1.1357 - val_mae: 1.0657
Epoch 47/250
88 - val_loss: 1.0804 - val_mae: 1.0394
Epoch 48/250
1/1 [============= ] - 0s 47ms/step - loss: 1.7328 - mae: 1.25
26 - val_loss: 1.0272 - val_mae: 1.0135
Epoch 49/250
68 - val_loss: 0.9760 - val_mae: 0.9879
Epoch 50/250
1/1 [============== ] - 0s 42ms/step - loss: 1.6065 - mae: 1.20
12 - val_loss: 0.9267 - val_mae: 0.9627
Epoch 51/250
59 - val_loss: 0.8793 - val_mae: 0.9377
Epoch 52/250
1/1 [============= ] - 0s 39ms/step - loss: 1.4885 - mae: 1.15
10 - val_loss: 0.8337 - val_mae: 0.9131
Epoch 53/250
1/1 [============= ] - 0s 41ms/step - loss: 1.4325 - mae: 1.12
64 - val_loss: 0.7900 - val_mae: 0.8888
Epoch 54/250
21 - val_loss: 0.7480 - val_mae: 0.8648
Epoch 55/250
1/1 [============] - 0s 50ms/step - loss: 1.3261 - mae: 1.07
82 - val loss: 0.7076 - val mae: 0.8412
Epoch 56/250
1/1 [===========] - 0s 47ms/step - loss: 1.2758 - mae: 1.05
45 - val loss: 0.6690 - val mae: 0.8179
Epoch 57/250
1/1 [============ ] - 0s 49ms/step - loss: 1.2272 - mae: 1.03
12 - val loss: 0.6319 - val mae: 0.7949
Epoch 58/250
83 - val loss: 0.5964 - val mae: 0.7723
Epoch 59/250
1/1 [============ ] - 0s 48ms/step - loss: 1.1351 - mae: 0.98
56 - val loss: 0.5624 - val mae: 0.7499
Epoch 60/250
1/1 [============== ] - 0s 41ms/step - loss: 1.0917 - mae: 0.96
33 - val loss: 0.5299 - val mae: 0.7279
Epoch 61/250
1/1 [=============== ] - 0s 38ms/step - loss: 1.0498 - mae: 0.94
```

```
13 - val_loss: 0.4988 - val_mae: 0.7063
Epoch 62/250
1/1 [============= ] - 0s 40ms/step - loss: 1.0095 - mae: 0.91
96 - val_loss: 0.4691 - val_mae: 0.6849
Epoch 63/250
83 - val_loss: 0.4408 - val_mae: 0.6639
Epoch 64/250
73 - val_loss: 0.4137 - val_mae: 0.6432
Epoch 65/250
1/1 [============= ] - 0s 38ms/step - loss: 0.8975 - mae: 0.85
66 - val_loss: 0.3880 - val_mae: 0.6229
Epoch 66/250
62 - val_loss: 0.3634 - val_mae: 0.6028
Epoch 67/250
62 - val_loss: 0.3400 - val_mae: 0.5831
Epoch 68/250
1/1 [============= ] - 0s 39ms/step - loss: 0.7981 - mae: 0.79
65 - val_loss: 0.3178 - val_mae: 0.5637
Epoch 69/250
1/1 [============== ] - 0s 45ms/step - loss: 0.7676 - mae: 0.77
71 - val_loss: 0.2966 - val_mae: 0.5446
Epoch 70/250
1/1 [============= ] - 0s 42ms/step - loss: 0.7383 - mae: 0.75
80 - val_loss: 0.2766 - val_mae: 0.5259
Epoch 71/250
1/1 [============= ] - 0s 45ms/step - loss: 0.7103 - mae: 0.73
93 - val_loss: 0.2575 - val_mae: 0.5075
Epoch 72/250
08 - val_loss: 0.2394 - val_mae: 0.4893
Epoch 73/250
1/1 [============== ] - 0s 54ms/step - loss: 0.6575 - mae: 0.70
27 - val_loss: 0.2223 - val_mae: 0.4715
Epoch 74/250
49 - val_loss: 0.2061 - val_mae: 0.4540
Epoch 75/250
1/1 [============== ] - 0s 61ms/step - loss: 0.6092 - mae: 0.66
74 - val_loss: 0.1908 - val_mae: 0.4369
Epoch 76/250
1/1 [============== ] - 0s 43ms/step - loss: 0.5865 - mae: 0.65
02 - val_loss: 0.1764 - val_mae: 0.4200
Epoch 77/250
1/1 [============ ] - 0s 39ms/step - loss: 0.5649 - mae: 0.63
34 - val_loss: 0.1627 - val_mae: 0.4034
Epoch 78/250
1/1 [============= ] - 0s 38ms/step - loss: 0.5442 - mae: 0.61
68 - val loss: 0.1499 - val mae: 0.3872
Epoch 79/250
1/1 [============ ] - 0s 77ms/step - loss: 0.5244 - mae: 0.60
09 - val loss: 0.1378 - val mae: 0.3712
Epoch 80/250
1/1 [============= ] - 0s 49ms/step - loss: 0.5055 - mae: 0.58
62 - val loss: 0.1264 - val mae: 0.3556
Epoch 81/250
18 - val loss: 0.1157 - val mae: 0.3402
Epoch 82/250
1/1 [============= ] - 0s 54ms/step - loss: 0.4702 - mae: 0.55
77 - val loss: 0.1057 - val mae: 0.3251
Epoch 83/250
1/1 [============== ] - 0s 44ms/step - loss: 0.4538 - mae: 0.54
38 - val loss: 0.0963 - val mae: 0.3104
Epoch 84/250
1/1 [============== ] - 0s 45ms/step - loss: 0.4381 - mae: 0.53
```

```
03 - val_loss: 0.0876 - val_mae: 0.2959
Epoch 85/250
69 - val_loss: 0.0794 - val_mae: 0.2817
Epoch 86/250
43 - val_loss: 0.0717 - val_mae: 0.2678
Epoch 87/250
26 - val_loss: 0.0646 - val_mae: 0.2542
Epoch 88/250
1/1 [============= ] - 0s 57ms/step - loss: 0.3824 - mae: 0.48
12 - val_loss: 0.0580 - val_mae: 0.2409
Epoch 89/250
00 - val_loss: 0.0519 - val_mae: 0.2278
Epoch 90/250
1/1 [============= ] - 0s 40ms/step - loss: 0.3584 - mae: 0.45
98 - val_loss: 0.0463 - val_mae: 0.2151
Epoch 91/250
02 - val_loss: 0.0410 - val_mae: 0.2026
Epoch 92/250
1/1 [============== ] - 0s 44ms/step - loss: 0.3368 - mae: 0.44
20 - val_loss: 0.0362 - val_mae: 0.1903
Epoch 93/250
46 - val_loss: 0.0318 - val_mae: 0.1784
Epoch 94/250
75 - val_loss: 0.0278 - val_mae: 0.1667
Epoch 95/250
04 - val_loss: 0.0241 - val_mae: 0.1552
Epoch 96/250
1/1 [============== ] - 0s 37ms/step - loss: 0.2996 - mae: 0.41
36 - val_loss: 0.0207 - val_mae: 0.1440
Epoch 97/250
69 - val_loss: 0.0177 - val_mae: 0.1331
Epoch 98/250
1/1 [============== ] - 0s 41ms/step - loss: 0.2838 - mae: 0.40
03 - val_loss: 0.0150 - val_mae: 0.1224
Epoch 99/250
1/1 [============== ] - 0s 43ms/step - loss: 0.2765 - mae: 0.39
48 - val_loss: 0.0125 - val_mae: 0.1120
Epoch 100/250
1/1 [============= ] - 0s 41ms/step - loss: 0.2696 - mae: 0.39
00 - val_loss: 0.0104 - val_mae: 0.1018
Epoch 101/250
1/1 [============] - 0s 44ms/step - loss: 0.2631 - mae: 0.38
63 - val loss: 0.0084 - val mae: 0.0919
Epoch 102/250
1/1 [===========] - 0s 44ms/step - loss: 0.2569 - mae: 0.38
28 - val loss: 0.0068 - val mae: 0.0822
Epoch 103/250
93 - val loss: 0.0053 - val mae: 0.0727
Epoch 104/250
59 - val loss: 0.0040 - val mae: 0.0635
Epoch 105/250
1/1 [============= ] - 0s 37ms/step - loss: 0.2404 - mae: 0.37
30 - val loss: 0.0030 - val mae: 0.0545
Epoch 106/250
1/1 [============== ] - 0s 44ms/step - loss: 0.2355 - mae: 0.37
05 - val loss: 0.0021 - val mae: 0.0457
Epoch 107/250
1/1 [=============== ] - 0s 41ms/step - loss: 0.2309 - mae: 0.36
```

```
80 - val_loss: 0.0014 - val_mae: 0.0372
Epoch 108/250
1/1 [============ ] - 0s 39ms/step - loss: 0.2265 - mae: 0.36
56 - val_loss: 8.3075e-04 - val_mae: 0.0288
Epoch 109/250
33 - val_loss: 4.2850e-04 - val_mae: 0.0207
Epoch 110/250
1/1 [============== ] - 0s 43ms/step - loss: 0.2185 - mae: 0.36
10 - val_loss: 1.6358e-04 - val_mae: 0.0128
Epoch 111/250
1/1 [============= ] - 0s 39ms/step - loss: 0.2149 - mae: 0.35
88 - val_loss: 2.5884e-05 - val_mae: 0.0051
Epoch 112/250
66 - val_loss: 5.8078e-06 - val_mae: 0.0024
Epoch 113/250
45 - val_loss: 9.4211e-05 - val_mae: 0.0097
Epoch 114/250
25 - val_loss: 2.8240e-04 - val_mae: 0.0168
Epoch 115/250
1/1 [============== ] - 0s 39ms/step - loss: 0.2024 - mae: 0.35
05 - val_loss: 5.6210e-04 - val_mae: 0.0237
Epoch 116/250
86 - val_loss: 9.2547e-04 - val_mae: 0.0304
Epoch 117/250
1/1 [============== ] - 0s 45ms/step - loss: 0.1972 - mae: 0.34
67 - val_loss: 0.0014 - val_mae: 0.0369
Epoch 118/250
49 - val_loss: 0.0019 - val_mae: 0.0433
Epoch 119/250
1/1 [============== ] - 0s 57ms/step - loss: 0.1927 - mae: 0.34
31 - val_loss: 0.0024 - val_mae: 0.0494
Epoch 120/250
1/1 [============== ] - 0s 44ms/step - loss: 0.1906 - mae: 0.34
14 - val_loss: 0.0031 - val_mae: 0.0554
Epoch 121/250
1/1 [============== ] - 0s 43ms/step - loss: 0.1887 - mae: 0.33
97 - val_loss: 0.0038 - val_mae: 0.0612
Epoch 122/250
1/1 [============== ] - 0s 40ms/step - loss: 0.1869 - mae: 0.33
81 - val_loss: 0.0045 - val_mae: 0.0669
Epoch 123/250
70 - val_loss: 0.0052 - val_mae: 0.0724
Epoch 124/250
59 - val loss: 0.0060 - val mae: 0.0777
Epoch 125/250
1/1 [===========] - 0s 39ms/step - loss: 0.1822 - mae: 0.33
53 - val loss: 0.0069 - val mae: 0.0828
Epoch 126/250
47 - val loss: 0.0077 - val mae: 0.0878
Epoch 127/250
41 - val loss: 0.0086 - val mae: 0.0927
Epoch 128/250
1/1 [============ ] - 0s 41ms/step - loss: 0.1783 - mae: 0.33
35 - val_loss: 0.0095 - val_mae: 0.0973
Epoch 129/250
1/1 [============== ] - 0s 43ms/step - loss: 0.1772 - mae: 0.33
29 - val loss: 0.0104 - val mae: 0.1019
Epoch 130/250
1/1 [=============== ] - 0s 74ms/step - loss: 0.1762 - mae: 0.33
```

```
24 - val_loss: 0.0113 - val_mae: 0.1063
Epoch 131/250
18 - val_loss: 0.0122 - val_mae: 0.1105
Epoch 132/250
1/1 [============ ] - 0s 50ms/step - loss: 0.1743 - mae: 0.33
13 - val_loss: 0.0131 - val_mae: 0.1147
Epoch 133/250
1/1 [============= ] - 0s 53ms/step - loss: 0.1735 - mae: 0.33
08 - val_loss: 0.0141 - val_mae: 0.1187
Epoch 134/250
1/1 [============ ] - 0s 40ms/step - loss: 0.1727 - mae: 0.33
06 - val_loss: 0.0150 - val_mae: 0.1225
Epoch 135/250
1/1 [============= ] - 0s 42ms/step - loss: 0.1720 - mae: 0.33
04 - val_loss: 0.0159 - val_mae: 0.1262
Epoch 136/250
1/1 [============ ] - 0s 43ms/step - loss: 0.1713 - mae: 0.33
03 - val_loss: 0.0169 - val_mae: 0.1298
Epoch 137/250
02 - val_loss: 0.0178 - val_mae: 0.1333
Epoch 138/250
1/1 [============== ] - 0s 41ms/step - loss: 0.1701 - mae: 0.33
00 - val_loss: 0.0187 - val_mae: 0.1367
Epoch 139/250
99 - val_loss: 0.0196 - val_mae: 0.1400
Epoch 140/250
1/1 [============= ] - 0s 41ms/step - loss: 0.1691 - mae: 0.32
97 - val_loss: 0.0205 - val_mae: 0.1431
Epoch 141/250
96 - val_loss: 0.0214 - val_mae: 0.1461
Epoch 142/250
1/1 [============== ] - 0s 62ms/step - loss: 0.1682 - mae: 0.32
95 - val_loss: 0.0222 - val_mae: 0.1490
Epoch 143/250
94 - val_loss: 0.0231 - val_mae: 0.1519
Epoch 144/250
1/1 [============== ] - 0s 40ms/step - loss: 0.1675 - mae: 0.32
93 - val_loss: 0.0239 - val_mae: 0.1546
Epoch 145/250
1/1 [============== ] - 0s 44ms/step - loss: 0.1672 - mae: 0.32
92 - val_loss: 0.0247 - val_mae: 0.1572
Epoch 146/250
90 - val_loss: 0.0255 - val_mae: 0.1597
Epoch 147/250
1/1 [============= ] - 0s 47ms/step - loss: 0.1666 - mae: 0.32
89 - val loss: 0.0263 - val mae: 0.1621
Epoch 148/250
1/1 [===========] - 0s 46ms/step - loss: 0.1663 - mae: 0.32
88 - val loss: 0.0271 - val mae: 0.1645
Epoch 149/250
88 - val loss: 0.0278 - val mae: 0.1667
Epoch 150/250
87 - val loss: 0.0285 - val mae: 0.1689
Epoch 151/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1657 - mae: 0.32
86 - val loss: 0.0292 - val mae: 0.1710
Epoch 152/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1655 - mae: 0.32
85 - val loss: 0.0299 - val mae: 0.1730
Epoch 153/250
1/1 [=============== ] - 0s 45ms/step - loss: 0.1653 - mae: 0.32
```

```
84 - val_loss: 0.0306 - val_mae: 0.1749
Epoch 154/250
83 - val_loss: 0.0312 - val_mae: 0.1768
Epoch 155/250
83 - val_loss: 0.0319 - val_mae: 0.1785
Epoch 156/250
82 - val_loss: 0.0325 - val_mae: 0.1803
Epoch 157/250
1/1 [============ ] - 0s 41ms/step - loss: 0.1648 - mae: 0.32
81 - val_loss: 0.0331 - val_mae: 0.1819
Epoch 158/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1647 - mae: 0.32
80 - val_loss: 0.0337 - val_mae: 0.1835
Epoch 159/250
1/1 [============ ] - 0s 47ms/step - loss: 0.1646 - mae: 0.32
80 - val_loss: 0.0342 - val_mae: 0.1850
Epoch 160/250
79 - val_loss: 0.0347 - val_mae: 0.1864
Epoch 161/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1644 - mae: 0.32
79 - val_loss: 0.0353 - val_mae: 0.1878
Epoch 162/250
78 - val_loss: 0.0358 - val_mae: 0.1891
Epoch 163/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1643 - mae: 0.32
77 - val_loss: 0.0362 - val_mae: 0.1904
Epoch 164/250
77 - val_loss: 0.0367 - val_mae: 0.1916
Epoch 165/250
1/1 [============== ] - 0s 41ms/step - loss: 0.1642 - mae: 0.32
76 - val_loss: 0.0372 - val_mae: 0.1928
Epoch 166/250
76 - val_loss: 0.0376 - val_mae: 0.1939
Epoch 167/250
1/1 [============== ] - 0s 40ms/step - loss: 0.1641 - mae: 0.32
75 - val_loss: 0.0380 - val_mae: 0.1949
Epoch 168/250
1/1 [============== ] - 0s 41ms/step - loss: 0.1640 - mae: 0.32
75 - val_loss: 0.0384 - val_mae: 0.1959
Epoch 169/250
1/1 [============= ] - 0s 43ms/step - loss: 0.1640 - mae: 0.32
75 - val_loss: 0.0388 - val_mae: 0.1969
Epoch 170/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1640 - mae: 0.32
74 - val loss: 0.0391 - val mae: 0.1978
Epoch 171/250
1/1 [===========] - 0s 41ms/step - loss: 0.1639 - mae: 0.32
74 - val loss: 0.0395 - val mae: 0.1987
Epoch 172/250
73 - val loss: 0.0398 - val mae: 0.1996
Epoch 173/250
73 - val loss: 0.0401 - val mae: 0.2004
Epoch 174/250
1/1 [============ ] - 0s 43ms/step - loss: 0.1639 - mae: 0.32
73 - val loss: 0.0404 - val mae: 0.2011
Epoch 175/250
1/1 [============== ] - 0s 39ms/step - loss: 0.1638 - mae: 0.32
72 - val loss: 0.0407 - val mae: 0.2018
Epoch 176/250
1/1 [=============== ] - 0s 40ms/step - loss: 0.1638 - mae: 0.32
```

```
72 - val_loss: 0.0410 - val_mae: 0.2025
Epoch 177/250
1/1 [============= ] - 0s 39ms/step - loss: 0.1638 - mae: 0.32
72 - val_loss: 0.0413 - val_mae: 0.2032
Epoch 178/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1638 - mae: 0.32
72 - val_loss: 0.0415 - val_mae: 0.2038
Epoch 179/250
72 - val_loss: 0.0418 - val_mae: 0.2044
Epoch 180/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1638 - mae: 0.32
72 - val_loss: 0.0420 - val_mae: 0.2050
Epoch 181/250
72 - val_loss: 0.0422 - val_mae: 0.2055
Epoch 182/250
1/1 [===========] - 0s 42ms/step - loss: 0.1637 - mae: 0.32
72 - val_loss: 0.0424 - val_mae: 0.2060
Epoch 183/250
73 - val_loss: 0.0426 - val_mae: 0.2065
Epoch 184/250
1/1 [============== ] - 0s 40ms/step - loss: 0.1637 - mae: 0.32
73 - val_loss: 0.0428 - val_mae: 0.2070
Epoch 185/250
73 - val_loss: 0.0430 - val_mae: 0.2074
Epoch 186/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1637 - mae: 0.32
73 - val_loss: 0.0432 - val_mae: 0.2078
Epoch 187/250
73 - val_loss: 0.0433 - val_mae: 0.2082
Epoch 188/250
1/1 [============== ] - 0s 41ms/step - loss: 0.1637 - mae: 0.32
73 - val_loss: 0.0435 - val_mae: 0.2085
Epoch 189/250
73 - val_loss: 0.0436 - val_mae: 0.2089
Epoch 190/250
1/1 [============== ] - 0s 43ms/step - loss: 0.1637 - mae: 0.32
73 - val_loss: 0.0438 - val_mae: 0.2092
Epoch 191/250
1/1 [============== ] - 0s 42ms/step - loss: 0.1637 - mae: 0.32
74 - val_loss: 0.0439 - val_mae: 0.2095
Epoch 192/250
74 - val_loss: 0.0440 - val_mae: 0.2098
Epoch 193/250
1/1 [============= ] - 0s 40ms/step - loss: 0.1637 - mae: 0.32
74 - val loss: 0.0441 - val mae: 0.2101
Epoch 194/250
1/1 [============ ] - 0s 38ms/step - loss: 0.1636 - mae: 0.32
74 - val loss: 0.0442 - val mae: 0.2103
Epoch 195/250
74 - val loss: 0.0443 - val mae: 0.2106
Epoch 196/250
74 - val loss: 0.0444 - val mae: 0.2108
Epoch 197/250
1/1 [============ ] - 0s 38ms/step - loss: 0.1636 - mae: 0.32
74 - val loss: 0.0445 - val mae: 0.2110
Epoch 198/250
1/1 [============== ] - 0s 44ms/step - loss: 0.1636 - mae: 0.32
74 - val loss: 0.0446 - val mae: 0.2112
Epoch 199/250
1/1 [============== ] - 0s 45ms/step - loss: 0.1636 - mae: 0.32
```

```
74 - val_loss: 0.0447 - val_mae: 0.2114
Epoch 200/250
1/1 [============= ] - 0s 42ms/step - loss: 0.1636 - mae: 0.32
74 - val_loss: 0.0448 - val_mae: 0.2116
Epoch 201/250
74 - val_loss: 0.0448 - val_mae: 0.2117
Epoch 202/250
1/1 [============== ] - 0s 50ms/step - loss: 0.1636 - mae: 0.32
74 - val_loss: 0.0449 - val_mae: 0.2119
Epoch 203/250
1/1 [============= ] - 0s 52ms/step - loss: 0.1636 - mae: 0.32
74 - val_loss: 0.0450 - val_mae: 0.2120
Epoch 204/250
74 - val_loss: 0.0450 - val_mae: 0.2122
Epoch 205/250
1/1 [===========] - 0s 49ms/step - loss: 0.1636 - mae: 0.32
74 - val_loss: 0.0451 - val_mae: 0.2123
Epoch 206/250
74 - val_loss: 0.0451 - val_mae: 0.2124
Epoch 207/250
1/1 [============= ] - 0s 45ms/step - loss: 0.1636 - mae: 0.32
74 - val_loss: 0.0452 - val_mae: 0.2125
Epoch 208/250
74 - val_loss: 0.0452 - val_mae: 0.2126
Epoch 209/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1636 - mae: 0.32
74 - val_loss: 0.0452 - val_mae: 0.2127
Epoch 210/250
74 - val_loss: 0.0453 - val_mae: 0.2128
Epoch 211/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1636 - mae: 0.32
74 - val_loss: 0.0453 - val_mae: 0.2128
Epoch 212/250
74 - val_loss: 0.0453 - val_mae: 0.2129
Epoch 213/250
1/1 [============== ] - 0s 41ms/step - loss: 0.1636 - mae: 0.32
74 - val_loss: 0.0454 - val_mae: 0.2130
Epoch 214/250
1/1 [============== ] - 0s 40ms/step - loss: 0.1636 - mae: 0.32
74 - val_loss: 0.0454 - val_mae: 0.2130
Epoch 215/250
74 - val_loss: 0.0454 - val_mae: 0.2131
Epoch 216/250
1/1 [============= ] - 0s 39ms/step - loss: 0.1635 - mae: 0.32
74 - val loss: 0.0454 - val mae: 0.2131
Epoch 217/250
1/1 [============ ] - 0s 42ms/step - loss: 0.1635 - mae: 0.32
74 - val loss: 0.0454 - val mae: 0.2132
Epoch 218/250
1/1 [============= ] - 0s 44ms/step - loss: 0.1635 - mae: 0.32
74 - val loss: 0.0455 - val mae: 0.2132
Epoch 219/250
1/1 [============ ] - 0s 53ms/step - loss: 0.1635 - mae: 0.32
74 - val loss: 0.0455 - val mae: 0.2133
Epoch 220/250
1/1 [============ ] - 0s 47ms/step - loss: 0.1635 - mae: 0.32
74 - val loss: 0.0455 - val mae: 0.2133
Epoch 221/250
1/1 [============== ] - 0s 50ms/step - loss: 0.1635 - mae: 0.32
74 - val loss: 0.0455 - val mae: 0.2133
Epoch 222/250
1/1 [============== ] - 0s 40ms/step - loss: 0.1635 - mae: 0.32
```

```
74 - val_loss: 0.0455 - val_mae: 0.2134
Epoch 223/250
1/1 [============= ] - 0s 40ms/step - loss: 0.1635 - mae: 0.32
74 - val_loss: 0.0455 - val_mae: 0.2134
Epoch 224/250
74 - val_loss: 0.0455 - val_mae: 0.2134
Epoch 225/250
1/1 [============= ] - 0s 46ms/step - loss: 0.1635 - mae: 0.32
73 - val_loss: 0.0455 - val_mae: 0.2134
Epoch 226/250
73 - val_loss: 0.0456 - val_mae: 0.2134
Epoch 227/250
73 - val_loss: 0.0456 - val_mae: 0.2134
Epoch 228/250
1/1 [===========] - 0s 50ms/step - loss: 0.1634 - mae: 0.32
73 - val_loss: 0.0456 - val_mae: 0.2134
Epoch 229/250
73 - val_loss: 0.0456 - val_mae: 0.2135
Epoch 230/250
1/1 [============== ] - 0s 50ms/step - loss: 0.1634 - mae: 0.32
73 - val_loss: 0.0456 - val_mae: 0.2135
Epoch 231/250
73 - val_loss: 0.0456 - val_mae: 0.2135
Epoch 232/250
1/1 [============== ] - 0s 48ms/step - loss: 0.1634 - mae: 0.32
73 - val_loss: 0.0456 - val_mae: 0.2135
Epoch 233/250
73 - val_loss: 0.0456 - val_mae: 0.2135
Epoch 234/250
1/1 [============== ] - 0s 47ms/step - loss: 0.1634 - mae: 0.32
72 - val_loss: 0.0456 - val_mae: 0.2135
Epoch 235/250
72 - val_loss: 0.0456 - val_mae: 0.2135
Epoch 236/250
1/1 [============== ] - 0s 56ms/step - loss: 0.1633 - mae: 0.32
72 - val_loss: 0.0456 - val_mae: 0.2135
Epoch 237/250
1/1 [============== ] - 0s 48ms/step - loss: 0.1633 - mae: 0.32
72 - val_loss: 0.0456 - val_mae: 0.2135
Epoch 238/250
1/1 [============= ] - 0s 38ms/step - loss: 0.1633 - mae: 0.32
72 - val_loss: 0.0456 - val_mae: 0.2135
Epoch 239/250
1/1 [============= ] - 0s 40ms/step - loss: 0.1633 - mae: 0.32
72 - val loss: 0.0456 - val mae: 0.2135
Epoch 240/250
1/1 [===========] - 0s 49ms/step - loss: 0.1633 - mae: 0.32
71 - val loss: 0.0456 - val mae: 0.2135
Epoch 241/250
1/1 [============= ] - 0s 46ms/step - loss: 0.1633 - mae: 0.32
71 - val loss: 0.0456 - val mae: 0.2135
Epoch 242/250
71 - val loss: 0.0456 - val mae: 0.2135
Epoch 243/250
1/1 [============ ] - 0s 47ms/step - loss: 0.1632 - mae: 0.32
71 - val loss: 0.0456 - val mae: 0.2134
Epoch 244/250
1/1 [============== ] - 0s 49ms/step - loss: 0.1632 - mae: 0.32
70 - val loss: 0.0456 - val mae: 0.2134
Epoch 245/250
1/1 [=============== ] - 0s 45ms/step - loss: 0.1632 - mae: 0.32
```

```
70 - val_loss: 0.0456 - val_mae: 0.2134
Epoch 246/250
1/1 [============= ] - 0s 68ms/step - loss: 0.1631 - mae: 0.32
70 - val_loss: 0.0456 - val_mae: 0.2134
Epoch 247/250
70 - val_loss: 0.0455 - val_mae: 0.2134
Epoch 248/250
69 - val_loss: 0.0455 - val_mae: 0.2134
Epoch 249/250
1/1 [============ ] - 0s 75ms/step - loss: 0.1631 - mae: 0.32
69 - val_loss: 0.0455 - val_mae: 0.2134
Epoch 250/250
68 - val_loss: 0.0455 - val_mae: 0.2134
Epoch 1/250
1/1 [===========] - 1s 907ms/step - loss: 11.5060 - mae: 3.
3299 - val_loss: 10.5843 - val_mae: 3.2534
Epoch 2/250
1/1 [=========================] - 0s 46ms/step - loss: 10.0261 - mae: 3.1
047 - val_loss: 9.9747 - val_mae: 3.1583
Epoch 3/250
1/1 [============== ] - 0s 49ms/step - loss: 8.4724 - mae: 2.84
61 - val_loss: 9.3520 - val_mae: 3.0581
Epoch 4/250
29 - val_loss: 8.6510 - val_mae: 2.9413
Epoch 5/250
1/1 [============== ] - 0s 42ms/step - loss: 5.5849 - mae: 2.27
05 - val_loss: 7.7618 - val_mae: 2.7860
Epoch 6/250
84 - val_loss: 6.7084 - val_mae: 2.5901
Epoch 7/250
1/1 [============= ] - 0s 46ms/step - loss: 3.3561 - mae: 1.65
46 - val_loss: 5.5478 - val_mae: 2.3554
Epoch 8/250
04 - val_loss: 4.3700 - val_mae: 2.0905
Epoch 9/250
1/1 [============== ] - 0s 46ms/step - loss: 1.8817 - mae: 1.20
09 - val_loss: 3.2380 - val_mae: 1.7995
Epoch 10/250
1/1 [============== ] - 0s 42ms/step - loss: 1.4587 - mae: 1.03
59 - val_loss: 2.2205 - val_mae: 1.4901
Epoch 11/250
23 - val_loss: 1.3800 - val_mae: 1.1747
Epoch 12/250
1/1 [============= ] - 0s 49ms/step - loss: 1.1523 - mae: 0.85
88 - val loss: 0.7545 - val mae: 0.8686
Epoch 13/250
1/1 [===========] - 0s 48ms/step - loss: 1.1542 - mae: 0.81
67 - val loss: 0.3466 - val mae: 0.5887
Epoch 14/250
1/1 [============ ] - 0s 73ms/step - loss: 1.1843 - mae: 0.78
49 - val loss: 0.1248 - val mae: 0.3533
Epoch 15/250
17 - val loss: 0.0310 - val mae: 0.1760
Epoch 16/250
1/1 [============ ] - 0s 48ms/step - loss: 1.1745 - mae: 0.73
25 - val_loss: 0.0035 - val_mae: 0.0596
Epoch 17/250
1/1 [============== ] - 0s 39ms/step - loss: 1.0922 - mae: 0.71
38 - val loss: 5.1161e-06 - val mae: 0.0023
Epoch 18/250
1/1 [============== ] - 0s 45ms/step - loss: 0.9628 - mae: 0.68
```

```
08 - val_loss: 3.8089e-04 - val_mae: 0.0195
Epoch 19/250
1/1 [============= ] - 0s 72ms/step - loss: 0.8077 - mae: 0.62
79 - val_loss: 1.6987e-05 - val_mae: 0.0041
Epoch 20/250
1/1 [============ ] - 0s 53ms/step - loss: 0.6500 - mae: 0.56
28 - val_loss: 0.0010 - val_mae: 0.0318
Epoch 21/250
40 - val_loss: 0.0061 - val_mae: 0.0778
Epoch 22/250
1/1 [============= ] - 0s 38ms/step - loss: 0.3949 - mae: 0.43
53 - val_loss: 0.0157 - val_mae: 0.1254
Epoch 23/250
1/1 [============ ] - 0s 39ms/step - loss: 0.3128 - mae: 0.38
73 - val_loss: 0.0285 - val_mae: 0.1688
Epoch 24/250
1/1 [============ ] - 0s 44ms/step - loss: 0.2605 - mae: 0.35
66 - val_loss: 0.0415 - val_mae: 0.2036
Epoch 25/250
71 - val_loss: 0.0513 - val_mae: 0.2265
Epoch 26/250
1/1 [============== ] - 0s 44ms/step - loss: 0.2206 - mae: 0.35
15 - val_loss: 0.0558 - val_mae: 0.2362
Epoch 27/250
13 - val_loss: 0.0541 - val_mae: 0.2325
Epoch 28/250
57 - val_loss: 0.0471 - val_mae: 0.2170
Epoch 29/250
74 - val_loss: 0.0368 - val_mae: 0.1919
Epoch 30/250
1/1 [============= ] - 0s 39ms/step - loss: 0.2203 - mae: 0.35
59 - val_loss: 0.0257 - val_mae: 0.1604
Epoch 31/250
61 - val_loss: 0.0159 - val_mae: 0.1261
Epoch 32/250
1/1 [============== ] - 0s 50ms/step - loss: 0.2050 - mae: 0.35
11 - val_loss: 0.0086 - val_mae: 0.0925
Epoch 33/250
1/1 [============== ] - 0s 49ms/step - loss: 0.1917 - mae: 0.33
66 - val_loss: 0.0039 - val_mae: 0.0624
Epoch 34/250
1/1 [============= ] - 0s 66ms/step - loss: 0.1763 - mae: 0.31
51 - val_loss: 0.0014 - val_mae: 0.0375
Epoch 35/250
1/1 [============= ] - 0s 39ms/step - loss: 0.1608 - mae: 0.30
12 - val loss: 3.4620e-04 - val mae: 0.0186
Epoch 36/250
15 - val loss: 3.3007e-05 - val mae: 0.0057
Epoch 37/250
86 - val loss: 2.9714e-06 - val mae: 0.0017
Epoch 38/250
86 - val loss: 2.4270e-05 - val mae: 0.0049
Epoch 39/250
1/1 [============= ] - 0s 42ms/step - loss: 0.1264 - mae: 0.28
72 - val loss: 2.8313e-05 - val mae: 0.0053
Epoch 40/250
1/1 [============== ] - 0s 41ms/step - loss: 0.1258 - mae: 0.29
28 - val loss: 2.0172e-05 - val mae: 0.0045
Epoch 41/250
1/1 [============== ] - 0s 40ms/step - loss: 0.1262 - mae: 0.29
```

```
92 - val_loss: 1.5339e-05 - val_mae: 0.0039
Epoch 42/250
12 - val_loss: 2.2838e-05 - val_mae: 0.0048
Epoch 43/250
01 - val_loss: 6.0834e-05 - val_mae: 0.0078
Epoch 44/250
1/1 [============== ] - 0s 41ms/step - loss: 0.1207 - mae: 0.29
52 - val_loss: 1.7517e-04 - val_mae: 0.0132
Epoch 45/250
1/1 [============ ] - 0s 44ms/step - loss: 0.1152 - mae: 0.28
54 - val_loss: 4.3783e-04 - val_mae: 0.0209
Epoch 46/250
1/1 [============= ] - 0s 36ms/step - loss: 0.1089 - mae: 0.27
17 - val_loss: 9.2335e-04 - val_mae: 0.0304
Epoch 47/250
71 - val_loss: 0.0017 - val_mae: 0.0409
Epoch 48/250
43 - val_loss: 0.0027 - val_mae: 0.0518
Epoch 49/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0935 - mae: 0.23
94 - val_loss: 0.0039 - val_mae: 0.0621
Epoch 50/250
1/1 [===========] - 0s 44ms/step - loss: 0.0911 - mae: 0.23
41 - val_loss: 0.0051 - val_mae: 0.0713
Epoch 51/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0899 - mae: 0.23
14 - val_loss: 0.0062 - val_mae: 0.0789
Epoch 52/250
95 - val_loss: 0.0071 - val_mae: 0.0846
Epoch 53/250
1/1 [============== ] - 0s 51ms/step - loss: 0.0887 - mae: 0.22
87 - val_loss: 0.0078 - val_mae: 0.0884
Epoch 54/250
85 - val_loss: 0.0082 - val_mae: 0.0908
Epoch 55/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0860 - mae: 0.22
67 - val_loss: 0.0085 - val_mae: 0.0922
Epoch 56/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0838 - mae: 0.22
32 - val_loss: 0.0087 - val_mae: 0.0933
Epoch 57/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0812 - mae: 0.21
84 - val_loss: 0.0090 - val_mae: 0.0947
Epoch 58/250
1/1 [============== ] - 0s 51ms/step - loss: 0.0784 - mae: 0.21
30 - val loss: 0.0094 - val mae: 0.0968
Epoch 59/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0759 - mae: 0.20
65 - val loss: 0.0100 - val mae: 0.1001
Epoch 60/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0738 - mae: 0.20
00 - val loss: 0.0110 - val mae: 0.1047
Epoch 61/250
46 - val loss: 0.0122 - val mae: 0.1107
Epoch 62/250
1/1 [============= ] - 0s 50ms/step - loss: 0.0712 - mae: 0.19
12 - val loss: 0.0139 - val mae: 0.1177
Epoch 63/250
1/1 [============== ] - 0s 65ms/step - loss: 0.0705 - mae: 0.19
18 - val loss: 0.0158 - val mae: 0.1255
Epoch 64/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0700 - mae: 0.19
```

```
32 - val_loss: 0.0179 - val_mae: 0.1337
Epoch 65/250
43 - val_loss: 0.0201 - val_mae: 0.1418
Epoch 66/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0688 - mae: 0.19
49 - val_loss: 0.0223 - val_mae: 0.1493
Epoch 67/250
50 - val_loss: 0.0243 - val_mae: 0.1560
Epoch 68/250
46 - val_loss: 0.0261 - val_mae: 0.1616
Epoch 69/250
37 - val_loss: 0.0276 - val_mae: 0.1660
Epoch 70/250
1/1 [============ ] - 0s 43ms/step - loss: 0.0646 - mae: 0.19
26 - val_loss: 0.0287 - val_mae: 0.1693
Epoch 71/250
13 - val_loss: 0.0294 - val_mae: 0.1716
Epoch 72/250
1/1 [============== ] - 0s 60ms/step - loss: 0.0625 - mae: 0.18
98 - val_loss: 0.0300 - val_mae: 0.1732
Epoch 73/250
85 - val_loss: 0.0304 - val_mae: 0.1744
Epoch 74/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0610 - mae: 0.18
80 - val_loss: 0.0308 - val_mae: 0.1755
Epoch 75/250
74 - val_loss: 0.0313 - val_mae: 0.1768
Epoch 76/250
1/1 [============== ] - 0s 55ms/step - loss: 0.0597 - mae: 0.18
67 - val_loss: 0.0319 - val_mae: 0.1786
Epoch 77/250
58 - val_loss: 0.0327 - val_mae: 0.1809
Epoch 78/250
1/1 [============== ] - 0s 50ms/step - loss: 0.0584 - mae: 0.18
49 - val_loss: 0.0338 - val_mae: 0.1839
Epoch 79/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0576 - mae: 0.18
39 - val_loss: 0.0351 - val_mae: 0.1873
Epoch 80/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0568 - mae: 0.18
28 - val_loss: 0.0365 - val_mae: 0.1910
Epoch 81/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0559 - mae: 0.18
16 - val loss: 0.0379 - val mae: 0.1948
Epoch 82/250
1/1 [===========] - 0s 62ms/step - loss: 0.0551 - mae: 0.18
03 - val loss: 0.0393 - val mae: 0.1982
Epoch 83/250
1/1 [============= ] - 0s 59ms/step - loss: 0.0543 - mae: 0.17
90 - val loss: 0.0404 - val mae: 0.2011
Epoch 84/250
76 - val loss: 0.0412 - val mae: 0.2030
Epoch 85/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0530 - mae: 0.17
63 - val_loss: 0.0415 - val_mae: 0.2038
Epoch 86/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0524 - mae: 0.17
49 - val loss: 0.0414 - val mae: 0.2034
Epoch 87/250
1/1 [=============== ] - 0s 45ms/step - loss: 0.0519 - mae: 0.17
```

```
36 - val_loss: 0.0407 - val_mae: 0.2018
Epoch 88/250
27 - val_loss: 0.0397 - val_mae: 0.1992
Epoch 89/250
18 - val_loss: 0.0384 - val_mae: 0.1959
Epoch 90/250
09 - val_loss: 0.0369 - val_mae: 0.1922
Epoch 91/250
01 - val_loss: 0.0355 - val_mae: 0.1885
Epoch 92/250
1/1 [============ ] - 0s 76ms/step - loss: 0.0490 - mae: 0.16
93 - val_loss: 0.0343 - val_mae: 0.1852
Epoch 93/250
1/1 [============ ] - 0s 51ms/step - loss: 0.0484 - mae: 0.16
86 - val_loss: 0.0334 - val_mae: 0.1827
Epoch 94/250
78 - val_loss: 0.0329 - val_mae: 0.1813
Epoch 95/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0474 - mae: 0.16
71 - val_loss: 0.0329 - val_mae: 0.1813
Epoch 96/250
1/1 [============] - 0s 42ms/step - loss: 0.0469 - mae: 0.16
65 - val_loss: 0.0333 - val_mae: 0.1825
Epoch 97/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0464 - mae: 0.16
58 - val_loss: 0.0343 - val_mae: 0.1851
Epoch 98/250
53 - val_loss: 0.0357 - val_mae: 0.1889
Epoch 99/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0454 - mae: 0.16
51 - val_loss: 0.0375 - val_mae: 0.1937
Epoch 100/250
48 - val_loss: 0.0397 - val_mae: 0.1991
Epoch 101/250
1/1 [============== ] - 0s 68ms/step - loss: 0.0444 - mae: 0.16
46 - val_loss: 0.0420 - val_mae: 0.2049
Epoch 102/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0439 - mae: 0.16
44 - val_loss: 0.0444 - val_mae: 0.2108
Epoch 103/250
1/1 [============ ] - 0s 53ms/step - loss: 0.0434 - mae: 0.16
42 - val_loss: 0.0468 - val_mae: 0.2164
Epoch 104/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0429 - mae: 0.16
40 - val loss: 0.0491 - val mae: 0.2215
Epoch 105/250
1/1 [===========] - 0s 44ms/step - loss: 0.0424 - mae: 0.16
37 - val loss: 0.0511 - val mae: 0.2261
Epoch 106/250
34 - val loss: 0.0529 - val mae: 0.2299
Epoch 107/250
30 - val loss: 0.0543 - val mae: 0.2331
Epoch 108/250
1/1 [============= ] - 0s 51ms/step - loss: 0.0410 - mae: 0.16
26 - val_loss: 0.0555 - val_mae: 0.2356
Epoch 109/250
1/1 [============== ] - 0s 58ms/step - loss: 0.0405 - mae: 0.16
20 - val loss: 0.0565 - val mae: 0.2376
Epoch 110/250
1/1 [============== ] - 0s 49ms/step - loss: 0.0400 - mae: 0.16
```

```
14 - val_loss: 0.0572 - val_mae: 0.2391
Epoch 111/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0395 - mae: 0.16
07 - val_loss: 0.0578 - val_mae: 0.2404
Epoch 112/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0390 - mae: 0.15
99 - val_loss: 0.0583 - val_mae: 0.2415
Epoch 113/250
90 - val_loss: 0.0589 - val_mae: 0.2426
Epoch 114/250
1/1 [============= ] - 0s 53ms/step - loss: 0.0381 - mae: 0.15
82 - val_loss: 0.0594 - val_mae: 0.2438
Epoch 115/250
73 - val_loss: 0.0601 - val_mae: 0.2451
Epoch 116/250
1/1 [===========] - 0s 43ms/step - loss: 0.0371 - mae: 0.15
63 - val_loss: 0.0609 - val_mae: 0.2467
Epoch 117/250
54 - val_loss: 0.0618 - val_mae: 0.2486
Epoch 118/250
1/1 [============= ] - 0s 52ms/step - loss: 0.0361 - mae: 0.15
45 - val_loss: 0.0629 - val_mae: 0.2507
Epoch 119/250
36 - val_loss: 0.0641 - val_mae: 0.2532
Epoch 120/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0351 - mae: 0.15
27 - val_loss: 0.0655 - val_mae: 0.2560
Epoch 121/250
18 - val_loss: 0.0671 - val_mae: 0.2590
Epoch 122/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0341 - mae: 0.15
09 - val_loss: 0.0688 - val_mae: 0.2623
Epoch 123/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0336 - mae: 0.15
00 - val_loss: 0.0707 - val_mae: 0.2658
Epoch 124/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0331 - mae: 0.14
91 - val_loss: 0.0726 - val_mae: 0.2695
Epoch 125/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0326 - mae: 0.14
83 - val_loss: 0.0747 - val_mae: 0.2733
Epoch 126/250
1/1 [============= ] - 0s 47ms/step - loss: 0.0321 - mae: 0.14
73 - val_loss: 0.0767 - val_mae: 0.2770
Epoch 127/250
1/1 [============= ] - 0s 49ms/step - loss: 0.0315 - mae: 0.14
64 - val loss: 0.0788 - val mae: 0.2807
Epoch 128/250
1/1 [===========] - 0s 52ms/step - loss: 0.0310 - mae: 0.14
54 - val loss: 0.0809 - val mae: 0.2844
Epoch 129/250
44 - val loss: 0.0829 - val mae: 0.2879
Epoch 130/250
34 - val loss: 0.0848 - val mae: 0.2912
Epoch 131/250
1/1 [============] - 0s 71ms/step - loss: 0.0294 - mae: 0.14
23 - val_loss: 0.0866 - val_mae: 0.2944
Epoch 132/250
1/1 [============== ] - 0s 226ms/step - loss: 0.0289 - mae: 0.1
412 - val loss: 0.0884 - val mae: 0.2974
Epoch 133/250
1/1 [=============== ] - 0s 62ms/step - loss: 0.0283 - mae: 0.14
```

```
01 - val_loss: 0.0901 - val_mae: 0.3002
Epoch 134/250
1/1 [============= ] - 0s 54ms/step - loss: 0.0278 - mae: 0.13
89 - val_loss: 0.0917 - val_mae: 0.3028
Epoch 135/250
78 - val_loss: 0.0932 - val_mae: 0.3052
Epoch 136/250
66 - val_loss: 0.0946 - val_mae: 0.3076
Epoch 137/250
1/1 [============ ] - 0s 47ms/step - loss: 0.0262 - mae: 0.13
55 - val_loss: 0.0961 - val_mae: 0.3101
Epoch 138/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0257 - mae: 0.13
43 - val_loss: 0.0977 - val_mae: 0.3126
Epoch 139/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0252 - mae: 0.13
31 - val_loss: 0.0994 - val_mae: 0.3153
Epoch 140/250
19 - val_loss: 0.1013 - val_mae: 0.3182
Epoch 141/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0242 - mae: 0.13
06 - val_loss: 0.1033 - val_mae: 0.3214
Epoch 142/250
93 - val_loss: 0.1054 - val_mae: 0.3247
Epoch 143/250
1/1 [============= ] - 0s 51ms/step - loss: 0.0232 - mae: 0.12
81 - val_loss: 0.1076 - val_mae: 0.3281
Epoch 144/250
68 - val_loss: 0.1099 - val_mae: 0.3316
Epoch 145/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0223 - mae: 0.12
54 - val_loss: 0.1122 - val_mae: 0.3350
Epoch 146/250
41 - val_loss: 0.1145 - val_mae: 0.3383
Epoch 147/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0214 - mae: 0.12
28 - val_loss: 0.1167 - val_mae: 0.3416
Epoch 148/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0210 - mae: 0.12
14 - val_loss: 0.1189 - val_mae: 0.3448
Epoch 149/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0206 - mae: 0.12
01 - val_loss: 0.1210 - val_mae: 0.3479
Epoch 150/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0201 - mae: 0.11
87 - val loss: 0.1232 - val mae: 0.3510
Epoch 151/250
1/1 [============] - 0s 35ms/step - loss: 0.0197 - mae: 0.11
74 - val loss: 0.1254 - val mae: 0.3542
Epoch 152/250
61 - val loss: 0.1278 - val mae: 0.3575
Epoch 153/250
49 - val loss: 0.1302 - val mae: 0.3609
Epoch 154/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0185 - mae: 0.11
37 - val loss: 0.1328 - val mae: 0.3644
Epoch 155/250
1/1 [=============== ] - 0s 38ms/step - loss: 0.0181 - mae: 0.11
26 - val loss: 0.1355 - val mae: 0.3680
Epoch 156/250
1/1 [=============== ] - 0s 35ms/step - loss: 0.0178 - mae: 0.11
```

```
14 - val_loss: 0.1382 - val_mae: 0.3718
Epoch 157/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0174 - mae: 0.11
03 - val_loss: 0.1410 - val_mae: 0.3755
Epoch 158/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0170 - mae: 0.10
91 - val_loss: 0.1437 - val_mae: 0.3791
Epoch 159/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0166 - mae: 0.10
80 - val_loss: 0.1465 - val_mae: 0.3827
Epoch 160/250
68 - val_loss: 0.1492 - val_mae: 0.3862
Epoch 161/250
57 - val_loss: 0.1518 - val_mae: 0.3897
Epoch 162/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0156 - mae: 0.10
45 - val_loss: 0.1545 - val_mae: 0.3930
Epoch 163/250
34 - val_loss: 0.1571 - val_mae: 0.3964
Epoch 164/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0149 - mae: 0.10
22 - val_loss: 0.1598 - val_mae: 0.3998
Epoch 165/250
10 - val_loss: 0.1626 - val_mae: 0.4032
Epoch 166/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0142 - mae: 0.09
99 - val_loss: 0.1654 - val_mae: 0.4067
Epoch 167/250
87 - val_loss: 0.1684 - val_mae: 0.4103
Epoch 168/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0136 - mae: 0.09
76 - val_loss: 0.1714 - val_mae: 0.4140
Epoch 169/250
64 - val_loss: 0.1745 - val_mae: 0.4177
Epoch 170/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0130 - mae: 0.09
53 - val_loss: 0.1776 - val_mae: 0.4214
Epoch 171/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0127 - mae: 0.09
41 - val_loss: 0.1807 - val_mae: 0.4251
Epoch 172/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0124 - mae: 0.09
29 - val_loss: 0.1839 - val_mae: 0.4288
Epoch 173/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0121 - mae: 0.09
17 - val loss: 0.1870 - val mae: 0.4325
Epoch 174/250
1/1 [===========] - 0s 39ms/step - loss: 0.0118 - mae: 0.09
06 - val loss: 0.1902 - val mae: 0.4361
Epoch 175/250
94 - val loss: 0.1934 - val mae: 0.4398
Epoch 176/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0112 - mae: 0.08
82 - val loss: 0.1967 - val mae: 0.4435
Epoch 177/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0110 - mae: 0.08
70 - val loss: 0.2000 - val mae: 0.4473
Epoch 178/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0107 - mae: 0.08
58 - val loss: 0.2034 - val mae: 0.4510
Epoch 179/250
1/1 [=============== ] - 0s 34ms/step - loss: 0.0104 - mae: 0.08
```

```
48 - val_loss: 0.2069 - val_mae: 0.4549
Epoch 180/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0102 - mae: 0.08
38 - val_loss: 0.2104 - val_mae: 0.4587
Epoch 181/250
1/1 [============= ] - 0s 49ms/step - loss: 0.0099 - mae: 0.08
27 - val_loss: 0.2141 - val_mae: 0.4627
Epoch 182/250
1/1 [============ ] - 0s 46ms/step - loss: 0.0096 - mae: 0.08
17 - val_loss: 0.2177 - val_mae: 0.4666
Epoch 183/250
1/1 [============ ] - 0s 44ms/step - loss: 0.0094 - mae: 0.08
07 - val_loss: 0.2215 - val_mae: 0.4706
Epoch 184/250
1/1 [============= ] - 0s 55ms/step - loss: 0.0091 - mae: 0.07
97 - val_loss: 0.2253 - val_mae: 0.4746
Epoch 185/250
1/1 [============ ] - 0s 48ms/step - loss: 0.0089 - mae: 0.07
87 - val_loss: 0.2292 - val_mae: 0.4787
Epoch 186/250
77 - val_loss: 0.2331 - val_mae: 0.4828
Epoch 187/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0085 - mae: 0.07
67 - val_loss: 0.2372 - val_mae: 0.4870
Epoch 188/250
57 - val_loss: 0.2414 - val_mae: 0.4913
Epoch 189/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0080 - mae: 0.07
47 - val_loss: 0.2456 - val_mae: 0.4956
Epoch 190/250
37 - val_loss: 0.2499 - val_mae: 0.4999
Epoch 191/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0076 - mae: 0.07
27 - val_loss: 0.2543 - val_mae: 0.5043
Epoch 192/250
18 - val_loss: 0.2587 - val_mae: 0.5086
Epoch 193/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0072 - mae: 0.07
10 - val_loss: 0.2631 - val_mae: 0.5130
Epoch 194/250
1/1 [=============== ] - 0s 45ms/step - loss: 0.0070 - mae: 0.07
01 - val_loss: 0.2676 - val_mae: 0.5173
Epoch 195/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0068 - mae: 0.06
94 - val_loss: 0.2720 - val_mae: 0.5215
Epoch 196/250
1/1 [============] - 0s 50ms/step - loss: 0.0066 - mae: 0.06
86 - val loss: 0.2764 - val mae: 0.5258
Epoch 197/250
1/1 [===========] - 0s 51ms/step - loss: 0.0065 - mae: 0.06
79 - val loss: 0.2809 - val mae: 0.5300
Epoch 198/250
72 - val loss: 0.2854 - val mae: 0.5342
Epoch 199/250
65 - val loss: 0.2899 - val mae: 0.5384
Epoch 200/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0060 - mae: 0.06
58 - val loss: 0.2944 - val mae: 0.5426
Epoch 201/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0058 - mae: 0.06
51 - val loss: 0.2990 - val mae: 0.5468
Epoch 202/250
1/1 [============== ] - 0s 55ms/step - loss: 0.0057 - mae: 0.06
```

```
43 - val_loss: 0.3036 - val_mae: 0.5510
Epoch 203/250
1/1 [============= ] - 0s 49ms/step - loss: 0.0055 - mae: 0.06
36 - val_loss: 0.3082 - val_mae: 0.5552
Epoch 204/250
1/1 [============= ] - 0s 54ms/step - loss: 0.0054 - mae: 0.06
29 - val_loss: 0.3128 - val_mae: 0.5593
Epoch 205/250
1/1 [============ ] - 0s 46ms/step - loss: 0.0052 - mae: 0.06
23 - val_loss: 0.3174 - val_mae: 0.5634
Epoch 206/250
1/1 [=========== ] - 0s 33ms/step - loss: 0.0051 - mae: 0.06
17 - val_loss: 0.3220 - val_mae: 0.5674
Epoch 207/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0050 - mae: 0.06
11 - val_loss: 0.3265 - val_mae: 0.5714
Epoch 208/250
1/1 [=========== ] - 0s 34ms/step - loss: 0.0049 - mae: 0.06
04 - val_loss: 0.3311 - val_mae: 0.5754
Epoch 209/250
98 - val_loss: 0.3356 - val_mae: 0.5793
Epoch 210/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0046 - mae: 0.05
92 - val_loss: 0.3401 - val_mae: 0.5832
Epoch 211/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0045 - mae: 0.05
86 - val_loss: 0.3447 - val_mae: 0.5871
Epoch 212/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0044 - mae: 0.05
80 - val_loss: 0.3492 - val_mae: 0.5909
Epoch 213/250
74 - val_loss: 0.3537 - val_mae: 0.5948
Epoch 214/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0042 - mae: 0.05
68 - val_loss: 0.3582 - val_mae: 0.5985
Epoch 215/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0041 - mae: 0.05
63 - val_loss: 0.3627 - val_mae: 0.6023
Epoch 216/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0040 - mae: 0.05
58 - val_loss: 0.3671 - val_mae: 0.6059
Epoch 217/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0039 - mae: 0.05
54 - val_loss: 0.3715 - val_mae: 0.6095
Epoch 218/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0038 - mae: 0.05
49 - val_loss: 0.3759 - val_mae: 0.6131
Epoch 219/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0037 - mae: 0.05
44 - val loss: 0.3802 - val mae: 0.6166
Epoch 220/250
1/1 [===========] - 0s 34ms/step - loss: 0.0036 - mae: 0.05
39 - val loss: 0.3845 - val mae: 0.6201
Epoch 221/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0035 - mae: 0.05
34 - val loss: 0.3887 - val mae: 0.6235
Epoch 222/250
29 - val loss: 0.3930 - val mae: 0.6269
Epoch 223/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0034 - mae: 0.05
24 - val loss: 0.3972 - val mae: 0.6302
Epoch 224/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0033 - mae: 0.05
19 - val loss: 0.4014 - val mae: 0.6335
Epoch 225/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0032 - mae: 0.05
```

```
14 - val_loss: 0.4055 - val_mae: 0.6368
Epoch 226/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0031 - mae: 0.05
09 - val_loss: 0.4096 - val_mae: 0.6400
Epoch 227/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0031 - mae: 0.05
05 - val_loss: 0.4137 - val_mae: 0.6432
Epoch 228/250
00 - val_loss: 0.4177 - val_mae: 0.6463
Epoch 229/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0029 - mae: 0.04
95 - val_loss: 0.4216 - val_mae: 0.6493
Epoch 230/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0029 - mae: 0.04
90 - val_loss: 0.4255 - val_mae: 0.6523
Epoch 231/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0028 - mae: 0.04
85 - val_loss: 0.4293 - val_mae: 0.6552
Epoch 232/250
80 - val_loss: 0.4331 - val_mae: 0.6581
Epoch 233/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0027 - mae: 0.04
75 - val_loss: 0.4369 - val_mae: 0.6610
Epoch 234/250
71 - val_loss: 0.4406 - val_mae: 0.6638
Epoch 235/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0026 - mae: 0.04
66 - val_loss: 0.4443 - val_mae: 0.6665
Epoch 236/250
61 - val_loss: 0.4479 - val_mae: 0.6692
Epoch 237/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0025 - mae: 0.04
57 - val_loss: 0.4514 - val_mae: 0.6719
Epoch 238/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0024 - mae: 0.04
52 - val_loss: 0.4550 - val_mae: 0.6745
Epoch 239/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0024 - mae: 0.04
48 - val_loss: 0.4584 - val_mae: 0.6771
Epoch 240/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0023 - mae: 0.04
44 - val_loss: 0.4618 - val_mae: 0.6796
Epoch 241/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0023 - mae: 0.04
39 - val_loss: 0.4652 - val_mae: 0.6821
Epoch 242/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0022 - mae: 0.04
35 - val loss: 0.4685 - val mae: 0.6845
Epoch 243/250
1/1 [===========] - 0s 31ms/step - loss: 0.0022 - mae: 0.04
31 - val loss: 0.4718 - val mae: 0.6869
Epoch 244/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0021 - mae: 0.04
26 - val loss: 0.4750 - val mae: 0.6892
Epoch 245/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0021 - mae: 0.04
22 - val loss: 0.4782 - val mae: 0.6915
Epoch 246/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0020 - mae: 0.04
18 - val loss: 0.4813 - val mae: 0.6938
Epoch 247/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0020 - mae: 0.04
13 - val loss: 0.4844 - val mae: 0.6960
Epoch 248/250
1/1 [=============== ] - 0s 33ms/step - loss: 0.0019 - mae: 0.04
```

```
09 - val_loss: 0.4875 - val_mae: 0.6982
Epoch 249/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0019 - mae: 0.04
05 - val_loss: 0.4905 - val_mae: 0.7004
Epoch 250/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0019 - mae: 0.04
00 - val_loss: 0.4935 - val_mae: 0.7025
Epoch 1/250
3989 - val_loss: 6.6152 - val_mae: 2.5720
Epoch 2/250
967 - val_loss: 5.9711 - val_mae: 2.4436
Epoch 3/250
71 - val_loss: 5.2349 - val_mae: 2.2880
Epoch 4/250
1/1 [============= ] - 0s 30ms/step - loss: 8.4671 - mae: 2.82
61 - val_loss: 4.4569 - val_mae: 2.1111
Epoch 5/250
05 - val_loss: 3.6849 - val_mae: 1.9196
Epoch 6/250
1/1 [=============== ] - 0s 30ms/step - loss: 6.6434 - mae: 2.47
27 - val_loss: 2.9342 - val_mae: 1.7130
Epoch 7/250
88 - val_loss: 2.2240 - val_mae: 1.4913
Epoch 8/250
1/1 [============== ] - 0s 32ms/step - loss: 5.0636 - mae: 2.09
75 - val_loss: 1.5794 - val_mae: 1.2568
Epoch 9/250
39 - val_loss: 1.0285 - val_mae: 1.0141
Epoch 10/250
1/1 [============== ] - 0s 30ms/step - loss: 3.7005 - mae: 1.73
49 - val_loss: 0.5929 - val_mae: 0.7700
Epoch 11/250
1/1 [============== ] - 0s 32ms/step - loss: 3.1018 - mae: 1.56
91 - val_loss: 0.2824 - val_mae: 0.5314
Epoch 12/250
1/1 [============== ] - 0s 32ms/step - loss: 2.5608 - mae: 1.39
89 - val_loss: 0.0926 - val_mae: 0.3043
Epoch 13/250
1/1 [============== ] - 0s 29ms/step - loss: 2.0759 - mae: 1.23
95 - val_loss: 0.0087 - val_mae: 0.0933
Epoch 14/250
1/1 [============= ] - 0s 31ms/step - loss: 1.6421 - mae: 1.08
63 - val_loss: 0.0095 - val_mae: 0.0976
Epoch 15/250
1/1 [============= ] - 0s 32ms/step - loss: 1.2540 - mae: 0.94
70 - val loss: 0.0704 - val mae: 0.2654
Epoch 16/250
1/1 [===========] - 0s 31ms/step - loss: 0.9160 - mae: 0.79
22 - val loss: 0.1661 - val mae: 0.4075
Epoch 17/250
1/1 [============ ] - 0s 30ms/step - loss: 0.6380 - mae: 0.63
50 - val loss: 0.2718 - val mae: 0.5213
Epoch 18/250
27 - val loss: 0.3661 - val mae: 0.6050
Epoch 19/250
1/1 [============= ] - 0s 31ms/step - loss: 0.2873 - mae: 0.39
68 - val_loss: 0.4326 - val_mae: 0.6577
Epoch 20/250
1/1 [============== ] - 0s 33ms/step - loss: 0.2300 - mae: 0.38
18 - val loss: 0.4622 - val mae: 0.6799
Epoch 21/250
1/1 [============== ] - 0s 31ms/step - loss: 0.2539 - mae: 0.39
```

```
33 - val_loss: 0.4554 - val_mae: 0.6748
Epoch 22/250
1/1 [============= ] - 0s 31ms/step - loss: 0.3442 - mae: 0.43
48 - val_loss: 0.4237 - val_mae: 0.6510
Epoch 23/250
1/1 [============= ] - 0s 33ms/step - loss: 0.4647 - mae: 0.52
34 - val_loss: 0.3845 - val_mae: 0.6201
Epoch 24/250
09 - val_loss: 0.3489 - val_mae: 0.5906
Epoch 25/250
1/1 [=========== ] - 0s 31ms/step - loss: 0.6101 - mae: 0.63
32 - val_loss: 0.3185 - val_mae: 0.5644
Epoch 26/250
1/1 [============= ] - 0s 30ms/step - loss: 0.5898 - mae: 0.62
37 - val_loss: 0.2900 - val_mae: 0.5385
Epoch 27/250
1/1 [============ ] - 0s 32ms/step - loss: 0.5230 - mae: 0.58
50 - val_loss: 0.2589 - val_mae: 0.5088
Epoch 28/250
1/1 [============= ] - 0s 32ms/step - loss: 0.4351 - mae: 0.53
13 - val_loss: 0.2224 - val_mae: 0.4716
Epoch 29/250
1/1 [============== ] - 0s 31ms/step - loss: 0.3468 - mae: 0.47
71 - val_loss: 0.1803 - val_mae: 0.4247
Epoch 30/250
15 - val_loss: 0.1351 - val_mae: 0.3675
Epoch 31/250
1/1 [============== ] - 0s 32ms/step - loss: 0.2100 - mae: 0.39
18 - val_loss: 0.0909 - val_mae: 0.3016
Epoch 32/250
17 - val_loss: 0.0527 - val_mae: 0.2295
Epoch 33/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1392 - mae: 0.30
96 - val_loss: 0.0240 - val_mae: 0.1548
Epoch 34/250
68 - val_loss: 0.0066 - val_mae: 0.0812
Epoch 35/250
1/1 [============== ] - 0s 35ms/step - loss: 0.1204 - mae: 0.24
99 - val_loss: 1.4943e-04 - val_mae: 0.0122
Epoch 36/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1236 - mae: 0.23
40 - val_loss: 0.0024 - val_mae: 0.0491
Epoch 37/250
1/1 [============= ] - 0s 30ms/step - loss: 0.1313 - mae: 0.22
98 - val_loss: 0.0101 - val_mae: 0.1004
Epoch 38/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1407 - mae: 0.23
08 - val loss: 0.0196 - val mae: 0.1399
Epoch 39/250
1/1 [===========] - 0s 30ms/step - loss: 0.1494 - mae: 0.24
34 - val loss: 0.0277 - val mae: 0.1665
Epoch 40/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1556 - mae: 0.25
73 - val loss: 0.0325 - val mae: 0.1801
Epoch 41/250
43 - val loss: 0.0328 - val mae: 0.1812
Epoch 42/250
1/1 [============= ] - 0s 35ms/step - loss: 0.1565 - mae: 0.26
43 - val_loss: 0.0291 - val_mae: 0.1706
Epoch 43/250
1/1 [============== ] - 0s 29ms/step - loss: 0.1509 - mae: 0.25
88 - val loss: 0.0224 - val mae: 0.1497
Epoch 44/250
1/1 [============== ] - 0s 31ms/step - loss: 0.1422 - mae: 0.25
```

```
00 - val_loss: 0.0145 - val_mae: 0.1205
Epoch 45/250
89 - val_loss: 0.0072 - val_mae: 0.0851
Epoch 46/250
1/1 [============= ] - 0s 31ms/step - loss: 0.1194 - mae: 0.22
90 - val_loss: 0.0021 - val_mae: 0.0457
Epoch 47/250
1/1 [============== ] - 0s 34ms/step - loss: 0.1076 - mae: 0.22
29 - val_loss: 2.2724e-05 - val_mae: 0.0048
Epoch 48/250
80 - val_loss: 0.0012 - val_mae: 0.0353
Epoch 49/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0882 - mae: 0.21
46 - val_loss: 0.0052 - val_mae: 0.0724
Epoch 50/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0813 - mae: 0.21
33 - val_loss: 0.0109 - val_mae: 0.1046
Epoch 51/250
28 - val_loss: 0.0170 - val_mae: 0.1304
Epoch 52/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0732 - mae: 0.21
53 - val_loss: 0.0221 - val_mae: 0.1488
Epoch 53/250
61 - val_loss: 0.0254 - val_mae: 0.1593
Epoch 54/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0705 - mae: 0.21
66 - val_loss: 0.0262 - val_mae: 0.1620
Epoch 55/250
66 - val_loss: 0.0248 - val_mae: 0.1576
Epoch 56/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0700 - mae: 0.21
82 - val_loss: 0.0216 - val_mae: 0.1469
Epoch 57/250
76 - val_loss: 0.0173 - val_mae: 0.1315
Epoch 58/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0698 - mae: 0.21
55 - val_loss: 0.0127 - val_mae: 0.1126
Epoch 59/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0694 - mae: 0.21
53 - val_loss: 0.0085 - val_mae: 0.0919
Epoch 60/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0687 - mae: 0.21
34 - val_loss: 0.0050 - val_mae: 0.0708
Epoch 61/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0675 - mae: 0.21
15 - val loss: 0.0025 - val mae: 0.0504
Epoch 62/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0660 - mae: 0.20
85 - val loss: 9.9910e-04 - val mae: 0.0316
Epoch 63/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0641 - mae: 0.20
44 - val loss: 2.3002e-04 - val mae: 0.0152
Epoch 64/250
92 - val loss: 1.8294e-06 - val mae: 0.0014
Epoch 65/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0597 - mae: 0.19
34 - val loss: 9.5624e-05 - val mae: 0.0098
Epoch 66/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0576 - mae: 0.18
71 - val loss: 3.3844e-04 - val mae: 0.0184
Epoch 67/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0556 - mae: 0.18
```

```
06 - val_loss: 6.1647e-04 - val_mae: 0.0248
Epoch 68/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0540 - mae: 0.17
41 - val_loss: 8.7032e-04 - val_mae: 0.0295
Epoch 69/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0528 - mae: 0.16
87 - val_loss: 0.0011 - val_mae: 0.0329
Epoch 70/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0518 - mae: 0.16
43 - val_loss: 0.0013 - val_mae: 0.0354
Epoch 71/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0512 - mae: 0.16
22 - val_loss: 0.0014 - val_mae: 0.0374
Epoch 72/250
13 - val_loss: 0.0015 - val_mae: 0.0392
Epoch 73/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0504 - mae: 0.16
10 - val_loss: 0.0017 - val_mae: 0.0410
Epoch 74/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0500 - mae: 0.16
09 - val loss: 0.0018 - val mae: 0.0429
Epoch 75/250
06 - val_loss: 0.0020 - val_mae: 0.0448
Epoch 76/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0491 - mae: 0.15
99 - val_loss: 0.0022 - val_mae: 0.0466
Epoch 77/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0485 - mae: 0.15
95 - val_loss: 0.0023 - val_mae: 0.0480
Epoch 78/250
89 - val_loss: 0.0024 - val_mae: 0.0490
Epoch 79/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0470 - mae: 0.15
79 - val_loss: 0.0024 - val_mae: 0.0493
Epoch 80/250
66 - val_loss: 0.0024 - val_mae: 0.0486
Epoch 81/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0454 - mae: 0.15
64 - val_loss: 0.0022 - val_mae: 0.0469
Epoch 82/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0446 - mae: 0.15
62 - val_loss: 0.0019 - val_mae: 0.0441
Epoch 83/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0439 - mae: 0.15
57 - val_loss: 0.0016 - val_mae: 0.0403
Epoch 84/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0431 - mae: 0.15
49 - val loss: 0.0013 - val mae: 0.0356
Epoch 85/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0425 - mae: 0.15
46 - val loss: 9.0635e-04 - val mae: 0.0301
Epoch 86/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0419 - mae: 0.15
42 - val loss: 5.8622e-04 - val mae: 0.0242
Epoch 87/250
39 - val loss: 3.3155e-04 - val mae: 0.0182
Epoch 88/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0408 - mae: 0.15
37 - val loss: 1.5491e-04 - val mae: 0.0124
Epoch 89/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0403 - mae: 0.15
35 - val loss: 5.2830e-05 - val mae: 0.0073
Epoch 90/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0399 - mae: 0.15
```

```
33 - val_loss: 8.9273e-06 - val_mae: 0.0030
Epoch 91/250
27 - val_loss: 2.0737e-08 - val_mae: 1.4400e-04
Epoch 92/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0390 - mae: 0.15
19 - val_loss: 3.8073e-06 - val_mae: 0.0020
Epoch 93/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0386 - mae: 0.15
07 - val_loss: 5.5017e-06 - val_mae: 0.0023
Epoch 94/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0381 - mae: 0.14
93 - val_loss: 1.7794e-06 - val_mae: 0.0013
Epoch 95/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0376 - mae: 0.14
79 - val_loss: 9.8040e-07 - val_mae: 9.9015e-04
Epoch 96/250
63 - val loss: 1.9816e-05 - val mae: 0.0045
Epoch 97/250
47 - val loss: 7.7764e-05 - val mae: 0.0088
Epoch 98/250
34 - val_loss: 1.9090e-04 - val_mae: 0.0138
Epoch 99/250
21 - val_loss: 3.6691e-04 - val_mae: 0.0192
Epoch 100/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0350 - mae: 0.14
08 - val_loss: 6.0229e-04 - val_mae: 0.0245
Epoch 101/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0345 - mae: 0.13
94 - val_loss: 8.8256e-04 - val_mae: 0.0297
Epoch 102/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0340 - mae: 0.13
83 - val_loss: 0.0012 - val_mae: 0.0344
Epoch 103/250
72 - val_loss: 0.0015 - val_mae: 0.0385
Epoch 104/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0332 - mae: 0.13
61 - val_loss: 0.0017 - val_mae: 0.0418
Epoch 105/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0327 - mae: 0.13
51 - val_loss: 0.0020 - val_mae: 0.0443
Epoch 106/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0323 - mae: 0.13
43 - val_loss: 0.0021 - val_mae: 0.0459
Epoch 107/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0319 - mae: 0.13
35 - val loss: 0.0022 - val mae: 0.0467
Epoch 108/250
1/1 [===========] - 0s 30ms/step - loss: 0.0315 - mae: 0.13
26 - val loss: 0.0022 - val mae: 0.0467
Epoch 109/250
17 - val loss: 0.0021 - val mae: 0.0460
Epoch 110/250
09 - val loss: 0.0020 - val mae: 0.0448
Epoch 111/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0302 - mae: 0.13
00 - val loss: 0.0019 - val mae: 0.0431
Epoch 112/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0298 - mae: 0.12
91 - val loss: 0.0017 - val mae: 0.0411
Epoch 113/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0293 - mae: 0.12
```

```
83 - val_loss: 0.0015 - val_mae: 0.0390
Epoch 114/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0289 - mae: 0.12
75 - val_loss: 0.0014 - val_mae: 0.0368
Epoch 115/250
67 - val_loss: 0.0012 - val_mae: 0.0346
Epoch 116/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0281 - mae: 0.12
60 - val_loss: 0.0011 - val_mae: 0.0327
Epoch 117/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0277 - mae: 0.12
52 - val_loss: 9.5505e-04 - val_mae: 0.0309
Epoch 118/250
44 - val_loss: 8.6695e-04 - val_mae: 0.0294
Epoch 119/250
1/1 [===========] - 0s 30ms/step - loss: 0.0269 - mae: 0.12
37 - val_loss: 8.0239e-04 - val_mae: 0.0283
Epoch 120/250
29 - val_loss: 7.6092e-04 - val_mae: 0.0276
Epoch 121/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0261 - mae: 0.12
22 - val_loss: 7.4164e-04 - val_mae: 0.0272
Epoch 122/250
14 - val_loss: 7.4358e-04 - val_mae: 0.0273
Epoch 123/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0253 - mae: 0.12
06 - val_loss: 7.6573e-04 - val_mae: 0.0277
Epoch 124/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0250 - mae: 0.11
98 - val_loss: 8.0691e-04 - val_mae: 0.0284
Epoch 125/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0246 - mae: 0.11
90 - val_loss: 8.6540e-04 - val_mae: 0.0294
Epoch 126/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0242 - mae: 0.11
83 - val_loss: 9.3892e-04 - val_mae: 0.0306
Epoch 127/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0238 - mae: 0.11
74 - val_loss: 0.0010 - val_mae: 0.0320
Epoch 128/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0234 - mae: 0.11
66 - val_loss: 0.0011 - val_mae: 0.0334
Epoch 129/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0231 - mae: 0.11
57 - val_loss: 0.0012 - val_mae: 0.0348
Epoch 130/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0227 - mae: 0.11
48 - val loss: 0.0013 - val mae: 0.0361
Epoch 131/250
1/1 [===========] - 0s 31ms/step - loss: 0.0223 - mae: 0.11
39 - val loss: 0.0014 - val mae: 0.0373
Epoch 132/250
30 - val loss: 0.0015 - val mae: 0.0382
Epoch 133/250
21 - val loss: 0.0015 - val mae: 0.0389
Epoch 134/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0213 - mae: 0.11
12 - val_loss: 0.0016 - val_mae: 0.0394
Epoch 135/250
1/1 [=============== ] - 0s 32ms/step - loss: 0.0209 - mae: 0.11
04 - val loss: 0.0016 - val mae: 0.0396
Epoch 136/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0206 - mae: 0.10
```

```
96 - val_loss: 0.0016 - val_mae: 0.0397
Epoch 137/250
89 - val_loss: 0.0016 - val_mae: 0.0395
Epoch 138/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0199 - mae: 0.10
82 - val_loss: 0.0015 - val_mae: 0.0393
Epoch 139/250
75 - val_loss: 0.0015 - val_mae: 0.0389
Epoch 140/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0192 - mae: 0.10
68 - val_loss: 0.0015 - val_mae: 0.0384
Epoch 141/250
61 - val_loss: 0.0014 - val_mae: 0.0379
Epoch 142/250
1/1 [===========] - 0s 30ms/step - loss: 0.0186 - mae: 0.10
54 - val_loss: 0.0014 - val_mae: 0.0374
Epoch 143/250
47 - val_loss: 0.0014 - val_mae: 0.0369
Epoch 144/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0179 - mae: 0.10
40 - val_loss: 0.0013 - val_mae: 0.0364
Epoch 145/250
32 - val_loss: 0.0013 - val_mae: 0.0359
Epoch 146/250
24 - val_loss: 0.0013 - val_mae: 0.0354
Epoch 147/250
16 - val_loss: 0.0012 - val_mae: 0.0349
Epoch 148/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0167 - mae: 0.10
08 - val_loss: 0.0012 - val_mae: 0.0343
Epoch 149/250
99 - val_loss: 0.0011 - val_mae: 0.0336
Epoch 150/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0160 - mae: 0.09
91 - val_loss: 0.0011 - val_mae: 0.0329
Epoch 151/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0157 - mae: 0.09
82 - val_loss: 0.0010 - val_mae: 0.0322
Epoch 152/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0154 - mae: 0.09
73 - val_loss: 9.8228e-04 - val_mae: 0.0313
Epoch 153/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0151 - mae: 0.09
64 - val loss: 9.2866e-04 - val mae: 0.0305
Epoch 154/250
55 - val loss: 8.7477e-04 - val mae: 0.0296
Epoch 155/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0146 - mae: 0.09
46 - val loss: 8.2152e-04 - val mae: 0.0287
Epoch 156/250
37 - val loss: 7.6951e-04 - val mae: 0.0277
Epoch 157/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0140 - mae: 0.09
28 - val_loss: 7.1882e-04 - val_mae: 0.0268
Epoch 158/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0137 - mae: 0.09
19 - val loss: 6.6924e-04 - val mae: 0.0259
Epoch 159/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0134 - mae: 0.09
```

```
09 - val_loss: 6.2040e-04 - val_mae: 0.0249
Epoch 160/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0131 - mae: 0.09
00 - val_loss: 5.7176e-04 - val_mae: 0.0239
Epoch 161/250
1/1 [===========] - 0s 32ms/step - loss: 0.0129 - mae: 0.08
91 - val_loss: 5.2279e-04 - val_mae: 0.0229
Epoch 162/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0126 - mae: 0.08
82 - val_loss: 4.7311e-04 - val_mae: 0.0218
Epoch 163/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0123 - mae: 0.08
73 - val_loss: 4.2257e-04 - val_mae: 0.0206
Epoch 164/250
64 - val_loss: 3.7131e-04 - val_mae: 0.0193
Epoch 165/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0118 - mae: 0.08
55 - val_loss: 3.1982e-04 - val_mae: 0.0179
Epoch 166/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0116 - mae: 0.08
46 - val_loss: 2.6889e-04 - val_mae: 0.0164
Epoch 167/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0113 - mae: 0.08
37 - val_loss: 2.1940e-04 - val_mae: 0.0148
Epoch 168/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0111 - mae: 0.08
29 - val_loss: 1.7260e-04 - val_mae: 0.0131
Epoch 169/250
            ======== ] - 0s 31ms/step - loss: 0.0108 - mae: 0.08
20 - val_loss: 1.2947e-04 - val_mae: 0.0114
Epoch 170/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0106 - mae: 0.08
12 - val_loss: 9.1163e-05 - val_mae: 0.0095
Epoch 171/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0104 - mae: 0.08
03 - val_loss: 5.8583e-05 - val_mae: 0.0077
Epoch 172/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0101 - mae: 0.07
94 - val_loss: 3.2557e-05 - val_mae: 0.0057
Epoch 173/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0099 - mae: 0.07
85 - val_loss: 1.3752e-05 - val_mae: 0.0037
Epoch 174/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0097 - mae: 0.07
76 - val_loss: 2.7798e-06 - val_mae: 0.0017
Epoch 175/250
67 - val_loss: 1.7111e-07 - val_mae: 4.1366e-04
Epoch 176/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0092 - mae: 0.07
58 - val loss: 6.4086e-06 - val mae: 0.0025
Epoch 177/250
49 - val loss: 2.1924e-05 - val mae: 0.0047
Epoch 178/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0088 - mae: 0.07
40 - val loss: 4.7076e-05 - val mae: 0.0069
Epoch 179/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0086 - mae: 0.07
31 - val loss: 8.2138e-05 - val mae: 0.0091
Epoch 180/250
1/1 [============] - 0s 31ms/step - loss: 0.0084 - mae: 0.07
21 - val_loss: 1.2722e-04 - val_mae: 0.0113
Epoch 181/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0082 - mae: 0.07
12 - val loss: 1.8235e-04 - val mae: 0.0135
Epoch 182/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0080 - mae: 0.07
```

```
03 - val_loss: 2.4736e-04 - val_mae: 0.0157
Epoch 183/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0078 - mae: 0.06
94 - val_loss: 3.2210e-04 - val_mae: 0.0179
Epoch 184/250
1/1 [===========] - 0s 31ms/step - loss: 0.0076 - mae: 0.06
85 - val_loss: 4.0636e-04 - val_mae: 0.0202
Epoch 185/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0074 - mae: 0.06
76 - val_loss: 5.0013e-04 - val_mae: 0.0224
Epoch 186/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0072 - mae: 0.06
67 - val_loss: 6.0352e-04 - val_mae: 0.0246
Epoch 187/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0070 - mae: 0.06
58 - val_loss: 7.1686e-04 - val_mae: 0.0268
Epoch 188/250
1/1 [===========] - 0s 31ms/step - loss: 0.0069 - mae: 0.06
49 - val_loss: 8.4063e-04 - val_mae: 0.0290
Epoch 189/250
40 - val_loss: 9.7562e-04 - val_mae: 0.0312
Epoch 190/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0065 - mae: 0.06
32 - val_loss: 0.0011 - val_mae: 0.0335
Epoch 191/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0063 - mae: 0.06
23 - val_loss: 0.0013 - val_mae: 0.0358
Epoch 192/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0062 - mae: 0.06
14 - val_loss: 0.0015 - val_mae: 0.0381
Epoch 193/250
05 - val_loss: 0.0016 - val_mae: 0.0405
Epoch 194/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0058 - mae: 0.05
96 - val_loss: 0.0018 - val_mae: 0.0429
Epoch 195/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0057 - mae: 0.05
87 - val_loss: 0.0020 - val_mae: 0.0453
Epoch 196/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0055 - mae: 0.05
78 - val_loss: 0.0023 - val_mae: 0.0477
Epoch 197/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0054 - mae: 0.05
69 - val_loss: 0.0025 - val_mae: 0.0500
Epoch 198/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0052 - mae: 0.05
60 - val_loss: 0.0027 - val_mae: 0.0524
Epoch 199/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0051 - mae: 0.05
52 - val loss: 0.0030 - val mae: 0.0547
Epoch 200/250
1/1 [===========] - 0s 31ms/step - loss: 0.0049 - mae: 0.05
43 - val loss: 0.0033 - val mae: 0.0570
Epoch 201/250
36 - val loss: 0.0035 - val mae: 0.0593
Epoch 202/250
28 - val loss: 0.0038 - val mae: 0.0615
Epoch 203/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0045 - mae: 0.05
21 - val loss: 0.0041 - val mae: 0.0637
Epoch 204/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0044 - mae: 0.05
14 - val loss: 0.0043 - val mae: 0.0658
Epoch 205/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0043 - mae: 0.05
```

```
07 - val_loss: 0.0046 - val_mae: 0.0680
Epoch 206/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0041 - mae: 0.05
00 - val_loss: 0.0049 - val_mae: 0.0700
Epoch 207/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0040 - mae: 0.04
93 - val_loss: 0.0052 - val_mae: 0.0721
Epoch 208/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0039 - mae: 0.04
86 - val_loss: 0.0055 - val_mae: 0.0741
Epoch 209/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0038 - mae: 0.04
79 - val_loss: 0.0058 - val_mae: 0.0761
Epoch 210/250
73 - val_loss: 0.0061 - val_mae: 0.0780
Epoch 211/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0036 - mae: 0.04
66 - val_loss: 0.0064 - val_mae: 0.0798
Epoch 212/250
60 - val_loss: 0.0067 - val_mae: 0.0816
Epoch 213/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0034 - mae: 0.04
53 - val_loss: 0.0070 - val_mae: 0.0834
Epoch 214/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0033 - mae: 0.04
47 - val_loss: 0.0072 - val_mae: 0.0851
Epoch 215/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0032 - mae: 0.04
41 - val_loss: 0.0075 - val_mae: 0.0868
Epoch 216/250
34 - val_loss: 0.0078 - val_mae: 0.0884
Epoch 217/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0030 - mae: 0.04
28 - val_loss: 0.0081 - val_mae: 0.0900
Epoch 218/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0029 - mae: 0.04
22 - val_loss: 0.0084 - val_mae: 0.0916
Epoch 219/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0028 - mae: 0.04
16 - val_loss: 0.0087 - val_mae: 0.0932
Epoch 220/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0028 - mae: 0.04
10 - val_loss: 0.0090 - val_mae: 0.0948
Epoch 221/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0027 - mae: 0.04
04 - val_loss: 0.0093 - val_mae: 0.0963
Epoch 222/250
1/1 [============] - 0s 30ms/step - loss: 0.0026 - mae: 0.03
98 - val loss: 0.0096 - val mae: 0.0978
Epoch 223/250
1/1 [===========] - 0s 32ms/step - loss: 0.0025 - mae: 0.03
92 - val loss: 0.0098 - val mae: 0.0992
Epoch 224/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0025 - mae: 0.03
86 - val loss: 0.0101 - val mae: 0.1007
Epoch 225/250
81 - val loss: 0.0104 - val mae: 0.1021
Epoch 226/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0023 - mae: 0.03
75 - val loss: 0.0107 - val mae: 0.1035
Epoch 227/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0023 - mae: 0.03
69 - val loss: 0.0110 - val mae: 0.1049
Epoch 228/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0022 - mae: 0.03
```

```
64 - val_loss: 0.0113 - val_mae: 0.1063
Epoch 229/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0021 - mae: 0.03
58 - val_loss: 0.0116 - val_mae: 0.1077
Epoch 230/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0021 - mae: 0.03
53 - val_loss: 0.0119 - val_mae: 0.1091
Epoch 231/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0020 - mae: 0.03
47 - val_loss: 0.0122 - val_mae: 0.1105
Epoch 232/250
1/1 [=========== ] - 0s 31ms/step - loss: 0.0020 - mae: 0.03
42 - val_loss: 0.0125 - val_mae: 0.1119
Epoch 233/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0019 - mae: 0.03
37 - val_loss: 0.0128 - val_mae: 0.1132
Epoch 234/250
1/1 [===========] - 0s 30ms/step - loss: 0.0018 - mae: 0.03
31 - val_loss: 0.0131 - val_mae: 0.1146
Epoch 235/250
26 - val_loss: 0.0134 - val_mae: 0.1159
Epoch 236/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0017 - mae: 0.03
21 - val_loss: 0.0137 - val_mae: 0.1172
Epoch 237/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0017 - mae: 0.03
16 - val_loss: 0.0140 - val_mae: 0.1185
Epoch 238/250
1/1 [============== ] - 0s 61ms/step - loss: 0.0016 - mae: 0.03
11 - val_loss: 0.0143 - val_mae: 0.1198
Epoch 239/250
06 - val_loss: 0.0146 - val_mae: 0.1210
Epoch 240/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0015 - mae: 0.03
02 - val_loss: 0.0149 - val_mae: 0.1222
Epoch 241/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0015 - mae: 0.02
97 - val_loss: 0.0152 - val_mae: 0.1235
Epoch 242/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0015 - mae: 0.02
92 - val_loss: 0.0155 - val_mae: 0.1247
Epoch 243/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0014 - mae: 0.02
88 - val_loss: 0.0158 - val_mae: 0.1259
Epoch 244/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0014 - mae: 0.02
83 - val_loss: 0.0161 - val_mae: 0.1271
Epoch 245/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0013 - mae: 0.02
79 - val loss: 0.0164 - val mae: 0.1282
Epoch 246/250
1/1 [===========] - 0s 32ms/step - loss: 0.0013 - mae: 0.02
74 - val loss: 0.0167 - val mae: 0.1294
Epoch 247/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0013 - mae: 0.02
70 - val loss: 0.0170 - val mae: 0.1305
Epoch 248/250
65 - val loss: 0.0173 - val mae: 0.1317
Epoch 249/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0012 - mae: 0.02
61 - val_loss: 0.0176 - val_mae: 0.1328
Epoch 250/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0012 - mae: 0.02
57 - val loss: 0.0179 - val mae: 0.1339
Epoch 1/250
```

```
4274 - val_loss: 10.2252 - val_mae: 3.1977
Epoch 2/250
850 - val_loss: 9.6772 - val_mae: 3.1108
Epoch 3/250
614 - val_loss: 9.1576 - val_mae: 3.0262
Epoch 4/250
91 - val_loss: 8.6686 - val_mae: 2.9443
Epoch 5/250
08 - val_loss: 8.1998 - val_mae: 2.8635
Epoch 6/250
09 - val_loss: 7.7410 - val_mae: 2.7823
Epoch 7/250
67 - val_loss: 7.2870 - val_mae: 2.6994
Epoch 8/250
46 - val_loss: 6.8312 - val_mae: 2.6137
Epoch 9/250
1/1 [============== ] - 0s 31ms/step - loss: 6.7611 - mae: 2.56
29 - val_loss: 6.3664 - val_mae: 2.5232
Epoch 10/250
03 - val_loss: 5.8996 - val_mae: 2.4289
Epoch 11/250
1/1 [============== ] - 0s 30ms/step - loss: 5.8424 - mae: 2.37
54 - val_loss: 5.4332 - val_mae: 2.3309
Epoch 12/250
74 - val_loss: 4.9638 - val_mae: 2.2280
Epoch 13/250
1/1 [============== ] - 0s 49ms/step - loss: 4.9355 - mae: 2.17
42 - val_loss: 4.4870 - val_mae: 2.1183
Epoch 14/250
33 - val_loss: 3.9995 - val_mae: 1.9999
Epoch 15/250
1/1 [============== ] - 0s 33ms/step - loss: 3.9874 - mae: 1.94
23 - val_loss: 3.4990 - val_mae: 1.8706
Epoch 16/250
1/1 [============= ] - 0s 36ms/step - loss: 3.4882 - mae: 1.80
93 - val_loss: 2.9861 - val_mae: 1.7280
Epoch 17/250
34 - val_loss: 2.4678 - val_mae: 1.5709
Epoch 18/250
46 - val loss: 1.9537 - val mae: 1.3978
Epoch 19/250
1/1 [============ ] - 0s 31ms/step - loss: 1.9768 - mae: 1.33
16 - val loss: 1.4564 - val mae: 1.2068
Epoch 20/250
1/1 [============ ] - 0s 33ms/step - loss: 1.5042 - mae: 1.14
33 - val loss: 0.9926 - val mae: 0.9963
Epoch 21/250
91 - val loss: 0.5849 - val mae: 0.7648
Epoch 22/250
1/1 [============= ] - 0s 36ms/step - loss: 0.6958 - mae: 0.71
89 - val loss: 0.2617 - val mae: 0.5115
Epoch 23/250
1/1 [============== ] - 0s 30ms/step - loss: 0.4013 - mae: 0.50
04 - val loss: 0.0563 - val mae: 0.2373
Epoch 24/250
1/1 [============== ] - 0s 35ms/step - loss: 0.2098 - mae: 0.35
```

```
44 - val_loss: 0.0029 - val_mae: 0.0539
Epoch 25/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1389 - mae: 0.30
30 - val_loss: 0.1241 - val_mae: 0.3523
Epoch 26/250
28 - val_loss: 0.4092 - val_mae: 0.6397
Epoch 27/250
1/1 [============= ] - 0s 41ms/step - loss: 0.3337 - mae: 0.52
13 - val_loss: 0.7921 - val_mae: 0.8900
Epoch 28/250
1/1 [============= ] - 0s 38ms/step - loss: 0.5089 - mae: 0.64
15 - val_loss: 1.1643 - val_mae: 1.0790
Epoch 29/250
1/1 [============= ] - 0s 33ms/step - loss: 0.6453 - mae: 0.73
31 - val_loss: 1.4257 - val_mae: 1.1940
Epoch 30/250
1/1 [============ ] - 0s 31ms/step - loss: 0.6993 - mae: 0.76
39 - val_loss: 1.5277 - val_mae: 1.2360
Epoch 31/250
1/1 [============== ] - 0s 38ms/step - loss: 0.6660 - mae: 0.73
94 - val_loss: 1.4755 - val_mae: 1.2147
Epoch 32/250
1/1 [============== ] - 0s 40ms/step - loss: 0.5689 - mae: 0.67
22 - val_loss: 1.3088 - val_mae: 1.1440
Epoch 33/250
1/1 [============ ] - 0s 37ms/step - loss: 0.4414 - mae: 0.58
05 - val_loss: 1.0790 - val_mae: 1.0388
Epoch 34/250
1/1 [============== ] - 0s 31ms/step - loss: 0.3148 - mae: 0.48
20 - val_loss: 0.8335 - val_mae: 0.9130
Epoch 35/250
87 - val_loss: 0.6062 - val_mae: 0.7786
Epoch 36/250
1/1 [============== ] - 0s 41ms/step - loss: 0.1389 - mae: 0.30
03 - val_loss: 0.4161 - val_mae: 0.6451
Epoch 37/250
84 - val_loss: 0.2698 - val_mae: 0.5194
Epoch 38/250
1/1 [============= ] - 0s 111ms/step - loss: 0.0913 - mae: 0.2
466 - val_loss: 0.1651 - val_mae: 0.4063
Epoch 39/250
1/1 [============= ] - 0s 105ms/step - loss: 0.1019 - mae: 0.2
522 - val_loss: 0.0951 - val_mae: 0.3085
Epoch 40/250
1/1 [============= ] - 0s 176ms/step - loss: 0.1238 - mae: 0.2
759 - val_loss: 0.0517 - val_mae: 0.2273
Epoch 41/250
1/1 [============= ] - 0s 173ms/step - loss: 0.1494 - mae: 0.3
025 - val loss: 0.0266 - val mae: 0.1630
Epoch 42/250
1/1 [============ ] - 0s 69ms/step - loss: 0.1730 - mae: 0.33
20 - val loss: 0.0133 - val mae: 0.1153
Epoch 43/250
1/1 [============ ] - 0s 53ms/step - loss: 0.1905 - mae: 0.35
44 - val loss: 0.0069 - val mae: 0.0833
Epoch 44/250
66 - val loss: 0.0043 - val mae: 0.0659
Epoch 45/250
1/1 [============= ] - 0s 56ms/step - loss: 0.2009 - mae: 0.36
69 - val loss: 0.0038 - val mae: 0.0620
Epoch 46/250
1/1 [============== ] - 0s 48ms/step - loss: 0.1938 - mae: 0.35
68 - val loss: 0.0049 - val mae: 0.0702
Epoch 47/250
1/1 [=============== ] - 0s 45ms/step - loss: 0.1801 - mae: 0.33
```

```
86 - val_loss: 0.0080 - val_mae: 0.0892
Epoch 48/250
35 - val_loss: 0.0138 - val_mae: 0.1176
Epoch 49/250
1/1 [============= ] - 0s 64ms/step - loss: 0.1413 - mae: 0.28
69 - val_loss: 0.0236 - val_mae: 0.1537
Epoch 50/250
80 - val_loss: 0.0384 - val_mae: 0.1959
Epoch 51/250
1/1 [============= ] - 0s 80ms/step - loss: 0.1022 - mae: 0.23
19 - val_loss: 0.0588 - val_mae: 0.2425
Epoch 52/250
1/1 [============= ] - 0s 51ms/step - loss: 0.0874 - mae: 0.21
25 - val_loss: 0.0849 - val_mae: 0.2914
Epoch 53/250
26 - val_loss: 0.1160 - val_mae: 0.3406
Epoch 54/250
58 - val_loss: 0.1506 - val_mae: 0.3881
Epoch 55/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0715 - mae: 0.20
91 - val_loss: 0.1864 - val_mae: 0.4317
Epoch 56/250
51 - val_loss: 0.2206 - val_mae: 0.4697
Epoch 57/250
1/1 [============== ] - 0s 50ms/step - loss: 0.0784 - mae: 0.23
26 - val_loss: 0.2505 - val_mae: 0.5005
Epoch 58/250
65 - val_loss: 0.2735 - val_mae: 0.5230
Epoch 59/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0860 - mae: 0.25
47 - val_loss: 0.2880 - val_mae: 0.5366
Epoch 60/250
73 - val_loss: 0.2932 - val_mae: 0.5415
Epoch 61/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0857 - mae: 0.25
46 - val_loss: 0.2894 - val_mae: 0.5379
Epoch 62/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0823 - mae: 0.24
84 - val_loss: 0.2778 - val_mae: 0.5270
Epoch 63/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0776 - mae: 0.23
96 - val_loss: 0.2602 - val_mae: 0.5101
Epoch 64/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0723 - mae: 0.22
82 - val loss: 0.2388 - val mae: 0.4887
Epoch 65/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0674 - mae: 0.21
51 - val loss: 0.2157 - val mae: 0.4644
Epoch 66/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0633 - mae: 0.20
48 - val loss: 0.1925 - val mae: 0.4388
Epoch 67/250
74 - val loss: 0.1708 - val mae: 0.4133
Epoch 68/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0589 - mae: 0.19
24 - val_loss: 0.1514 - val_mae: 0.3892
Epoch 69/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0583 - mae: 0.18
94 - val loss: 0.1350 - val mae: 0.3675
Epoch 70/250
1/1 [=============== ] - 0s 41ms/step - loss: 0.0584 - mae: 0.18
```

```
73 - val_loss: 0.1218 - val_mae: 0.3489
Epoch 71/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0587 - mae: 0.18
59 - val_loss: 0.1116 - val_mae: 0.3341
Epoch 72/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0589 - mae: 0.18
55 - val_loss: 0.1045 - val_mae: 0.3233
Epoch 73/250
1/1 [============ ] - 0s 52ms/step - loss: 0.0589 - mae: 0.18
41 - val_loss: 0.1002 - val_mae: 0.3165
Epoch 74/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0584 - mae: 0.18
18 - val_loss: 0.0984 - val_mae: 0.3137
Epoch 75/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0574 - mae: 0.17
88 - val_loss: 0.0989 - val_mae: 0.3145
Epoch 76/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0561 - mae: 0.17
51 - val_loss: 0.1014 - val_mae: 0.3185
Epoch 77/250
10 - val_loss: 0.1058 - val_mae: 0.3252
Epoch 78/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0529 - mae: 0.16
69 - val_loss: 0.1116 - val_mae: 0.3340
Epoch 79/250
48 - val_loss: 0.1185 - val_mae: 0.3443
Epoch 80/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0501 - mae: 0.16
41 - val_loss: 0.1262 - val_mae: 0.3552
Epoch 81/250
44 - val_loss: 0.1341 - val_mae: 0.3662
Epoch 82/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0483 - mae: 0.16
50 - val_loss: 0.1419 - val_mae: 0.3767
Epoch 83/250
68 - val_loss: 0.1490 - val_mae: 0.3860
Epoch 84/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0473 - mae: 0.16
84 - val_loss: 0.1551 - val_mae: 0.3938
Epoch 85/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0469 - mae: 0.16
94 - val_loss: 0.1598 - val_mae: 0.3997
Epoch 86/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0465 - mae: 0.16
98 - val_loss: 0.1628 - val_mae: 0.4035
Epoch 87/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0460 - mae: 0.16
94 - val loss: 0.1642 - val mae: 0.4053
Epoch 88/250
1/1 [===========] - 0s 31ms/step - loss: 0.0453 - mae: 0.16
85 - val loss: 0.1640 - val mae: 0.4049
Epoch 89/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0445 - mae: 0.16
69 - val loss: 0.1622 - val mae: 0.4028
Epoch 90/250
48 - val loss: 0.1592 - val mae: 0.3990
Epoch 91/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0429 - mae: 0.16
23 - val loss: 0.1553 - val mae: 0.3941
Epoch 92/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0421 - mae: 0.15
95 - val loss: 0.1508 - val mae: 0.3883
Epoch 93/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0414 - mae: 0.15
```

```
75 - val_loss: 0.1460 - val_mae: 0.3821
Epoch 94/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0408 - mae: 0.15
60 - val_loss: 0.1412 - val_mae: 0.3757
Epoch 95/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0402 - mae: 0.15
45 - val_loss: 0.1366 - val_mae: 0.3697
Epoch 96/250
28 - val_loss: 0.1326 - val_mae: 0.3641
Epoch 97/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0392 - mae: 0.15
13 - val_loss: 0.1292 - val_mae: 0.3594
Epoch 98/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0386 - mae: 0.14
98 - val_loss: 0.1264 - val_mae: 0.3556
Epoch 99/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0381 - mae: 0.14
81 - val_loss: 0.1244 - val_mae: 0.3528
Epoch 100/250
65 - val_loss: 0.1232 - val_mae: 0.3510
Epoch 101/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0370 - mae: 0.14
48 - val_loss: 0.1226 - val_mae: 0.3502
Epoch 102/250
34 - val_loss: 0.1227 - val_mae: 0.3503
Epoch 103/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0359 - mae: 0.14
21 - val_loss: 0.1233 - val_mae: 0.3512
Epoch 104/250
11 - val_loss: 0.1244 - val_mae: 0.3527
Epoch 105/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0347 - mae: 0.14
06 - val_loss: 0.1257 - val_mae: 0.3546
Epoch 106/250
01 - val_loss: 0.1272 - val_mae: 0.3567
Epoch 107/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0337 - mae: 0.13
97 - val_loss: 0.1288 - val_mae: 0.3589
Epoch 108/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0332 - mae: 0.13
92 - val_loss: 0.1303 - val_mae: 0.3610
Epoch 109/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0327 - mae: 0.13
87 - val_loss: 0.1316 - val_mae: 0.3628
Epoch 110/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0322 - mae: 0.13
80 - val loss: 0.1328 - val mae: 0.3644
Epoch 111/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0318 - mae: 0.13
73 - val loss: 0.1336 - val mae: 0.3655
Epoch 112/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0313 - mae: 0.13
64 - val loss: 0.1341 - val mae: 0.3662
Epoch 113/250
54 - val loss: 0.1344 - val mae: 0.3665
Epoch 114/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0303 - mae: 0.13
43 - val loss: 0.1343 - val mae: 0.3665
Epoch 115/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0299 - mae: 0.13
31 - val loss: 0.1340 - val mae: 0.3661
Epoch 116/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0294 - mae: 0.13
```

```
18 - val_loss: 0.1335 - val_mae: 0.3654
Epoch 117/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0289 - mae: 0.13
04 - val_loss: 0.1330 - val_mae: 0.3646
Epoch 118/250
90 - val_loss: 0.1323 - val_mae: 0.3638
Epoch 119/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0280 - mae: 0.12
75 - val_loss: 0.1317 - val_mae: 0.3629
Epoch 120/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0276 - mae: 0.12
61 - val_loss: 0.1312 - val_mae: 0.3622
Epoch 121/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0272 - mae: 0.12
46 - val_loss: 0.1308 - val_mae: 0.3616
Epoch 122/250
1/1 [===========] - 0s 32ms/step - loss: 0.0268 - mae: 0.12
33 - val_loss: 0.1305 - val_mae: 0.3612
Epoch 123/250
20 - val_loss: 0.1304 - val_mae: 0.3611
Epoch 124/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0259 - mae: 0.12
07 - val_loss: 0.1305 - val_mae: 0.3612
Epoch 125/250
95 - val_loss: 0.1308 - val_mae: 0.3616
Epoch 126/250
83 - val_loss: 0.1312 - val_mae: 0.3622
Epoch 127/250
72 - val_loss: 0.1318 - val_mae: 0.3630
Epoch 128/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0243 - mae: 0.11
62 - val_loss: 0.1325 - val_mae: 0.3640
Epoch 129/250
52 - val_loss: 0.1333 - val_mae: 0.3651
Epoch 130/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0235 - mae: 0.11
42 - val_loss: 0.1341 - val_mae: 0.3662
Epoch 131/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0232 - mae: 0.11
33 - val_loss: 0.1350 - val_mae: 0.3674
Epoch 132/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0228 - mae: 0.11
23 - val_loss: 0.1358 - val_mae: 0.3685
Epoch 133/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0224 - mae: 0.11
13 - val loss: 0.1366 - val mae: 0.3696
Epoch 134/250
1/1 [===========] - 0s 33ms/step - loss: 0.0221 - mae: 0.11
03 - val loss: 0.1374 - val mae: 0.3706
Epoch 135/250
94 - val loss: 0.1381 - val mae: 0.3716
Epoch 136/250
85 - val loss: 0.1387 - val mae: 0.3725
Epoch 137/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0210 - mae: 0.10
77 - val loss: 0.1393 - val mae: 0.3733
Epoch 138/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0207 - mae: 0.10
69 - val loss: 0.1399 - val mae: 0.3740
Epoch 139/250
1/1 [=============== ] - 0s 42ms/step - loss: 0.0203 - mae: 0.10
```

```
60 - val_loss: 0.1404 - val_mae: 0.3747
Epoch 140/250
52 - val_loss: 0.1409 - val_mae: 0.3754
Epoch 141/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0197 - mae: 0.10
43 - val_loss: 0.1414 - val_mae: 0.3761
Epoch 142/250
33 - val_loss: 0.1420 - val_mae: 0.3768
Epoch 143/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0190 - mae: 0.10
24 - val_loss: 0.1426 - val_mae: 0.3777
Epoch 144/250
14 - val_loss: 0.1433 - val_mae: 0.3785
Epoch 145/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0184 - mae: 0.10
05 - val_loss: 0.1440 - val_mae: 0.3795
Epoch 146/250
96 - val_loss: 0.1449 - val_mae: 0.3806
Epoch 147/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0178 - mae: 0.09
88 - val_loss: 0.1458 - val_mae: 0.3818
Epoch 148/250
81 - val_loss: 0.1468 - val_mae: 0.3831
Epoch 149/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0172 - mae: 0.09
73 - val_loss: 0.1478 - val_mae: 0.3845
Epoch 150/250
66 - val_loss: 0.1489 - val_mae: 0.3859
Epoch 151/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0167 - mae: 0.09
59 - val_loss: 0.1501 - val_mae: 0.3874
Epoch 152/250
54 - val_loss: 0.1513 - val_mae: 0.3890
Epoch 153/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0161 - mae: 0.09
48 - val_loss: 0.1526 - val_mae: 0.3906
Epoch 154/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0159 - mae: 0.09
42 - val_loss: 0.1538 - val_mae: 0.3922
Epoch 155/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0156 - mae: 0.09
36 - val_loss: 0.1551 - val_mae: 0.3938
Epoch 156/250
1/1 [============] - 0s 62ms/step - loss: 0.0154 - mae: 0.09
29 - val loss: 0.1564 - val mae: 0.3954
Epoch 157/250
1/1 [===========] - 0s 38ms/step - loss: 0.0151 - mae: 0.09
23 - val loss: 0.1576 - val mae: 0.3970
Epoch 158/250
17 - val loss: 0.1589 - val mae: 0.3986
Epoch 159/250
11 - val loss: 0.1601 - val mae: 0.4001
Epoch 160/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0144 - mae: 0.09
04 - val_loss: 0.1613 - val_mae: 0.4016
Epoch 161/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0142 - mae: 0.08
98 - val loss: 0.1625 - val mae: 0.4032
Epoch 162/250
1/1 [=============== ] - 0s 38ms/step - loss: 0.0140 - mae: 0.08
```

```
91 - val_loss: 0.1638 - val_mae: 0.4047
Epoch 163/250
1/1 [============= ] - 0s 42ms/step - loss: 0.0138 - mae: 0.08
85 - val_loss: 0.1650 - val_mae: 0.4062
Epoch 164/250
1/1 [============ ] - 0s 44ms/step - loss: 0.0135 - mae: 0.08
78 - val_loss: 0.1663 - val_mae: 0.4078
Epoch 165/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0133 - mae: 0.08
72 - val_loss: 0.1676 - val_mae: 0.4094
Epoch 166/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0131 - mae: 0.08
66 - val_loss: 0.1689 - val_mae: 0.4110
Epoch 167/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0129 - mae: 0.08
61 - val_loss: 0.1702 - val_mae: 0.4126
Epoch 168/250
1/1 [============ ] - 0s 42ms/step - loss: 0.0127 - mae: 0.08
56 - val_loss: 0.1716 - val_mae: 0.4143
Epoch 169/250
52 - val_loss: 0.1731 - val_mae: 0.4160
Epoch 170/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0124 - mae: 0.08
47 - val_loss: 0.1745 - val_mae: 0.4178
Epoch 171/250
43 - val_loss: 0.1761 - val_mae: 0.4196
Epoch 172/250
1/1 [============ ] - 0s 51ms/step - loss: 0.0120 - mae: 0.08
38 - val_loss: 0.1776 - val_mae: 0.4214
Epoch 173/250
33 - val_loss: 0.1792 - val_mae: 0.4233
Epoch 174/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0117 - mae: 0.08
28 - val_loss: 0.1808 - val_mae: 0.4252
Epoch 175/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0115 - mae: 0.08
24 - val_loss: 0.1824 - val_mae: 0.4271
Epoch 176/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0113 - mae: 0.08
19 - val_loss: 0.1840 - val_mae: 0.4290
Epoch 177/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0112 - mae: 0.08
14 - val_loss: 0.1857 - val_mae: 0.4309
Epoch 178/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0110 - mae: 0.08
09 - val_loss: 0.1873 - val_mae: 0.4328
Epoch 179/250
1/1 [============ ] - 0s 41ms/step - loss: 0.0109 - mae: 0.08
04 - val loss: 0.1890 - val mae: 0.4347
Epoch 180/250
1/1 [===========] - 0s 39ms/step - loss: 0.0107 - mae: 0.07
99 - val loss: 0.1907 - val mae: 0.4366
Epoch 181/250
95 - val loss: 0.1923 - val mae: 0.4385
Epoch 182/250
90 - val loss: 0.1940 - val mae: 0.4405
Epoch 183/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0103 - mae: 0.07
85 - val loss: 0.1957 - val mae: 0.4424
Epoch 184/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0102 - mae: 0.07
81 - val loss: 0.1974 - val mae: 0.4443
Epoch 185/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0101 - mae: 0.07
```

```
77 - val_loss: 0.1991 - val_mae: 0.4462
Epoch 186/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0099 - mae: 0.07
73 - val_loss: 0.2008 - val_mae: 0.4481
Epoch 187/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0098 - mae: 0.07
70 - val_loss: 0.2026 - val_mae: 0.4501
Epoch 188/250
67 - val_loss: 0.2044 - val_mae: 0.4521
Epoch 189/250
65 - val_loss: 0.2062 - val_mae: 0.4541
Epoch 190/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0095 - mae: 0.07
64 - val_loss: 0.2080 - val_mae: 0.4561
Epoch 191/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0094 - mae: 0.07
62 - val_loss: 0.2099 - val_mae: 0.4581
Epoch 192/250
60 - val_loss: 0.2118 - val_mae: 0.4602
Epoch 193/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0091 - mae: 0.07
59 - val_loss: 0.2137 - val_mae: 0.4622
Epoch 194/250
57 - val_loss: 0.2156 - val_mae: 0.4643
Epoch 195/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0089 - mae: 0.07
55 - val_loss: 0.2175 - val_mae: 0.4664
Epoch 196/250
53 - val_loss: 0.2195 - val_mae: 0.4685
Epoch 197/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0087 - mae: 0.07
52 - val_loss: 0.2215 - val_mae: 0.4706
Epoch 198/250
50 - val_loss: 0.2235 - val_mae: 0.4727
Epoch 199/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0085 - mae: 0.07
48 - val_loss: 0.2255 - val_mae: 0.4748
Epoch 200/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0084 - mae: 0.07
46 - val_loss: 0.2275 - val_mae: 0.4769
Epoch 201/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0084 - mae: 0.07
44 - val_loss: 0.2295 - val_mae: 0.4791
Epoch 202/250
1/1 [============= ] - 0s 47ms/step - loss: 0.0083 - mae: 0.07
42 - val loss: 0.2316 - val mae: 0.4812
Epoch 203/250
1/1 [===========] - 0s 43ms/step - loss: 0.0082 - mae: 0.07
40 - val loss: 0.2336 - val mae: 0.4834
Epoch 204/250
1/1 [============= ] - 0s 93ms/step - loss: 0.0081 - mae: 0.07
38 - val loss: 0.2357 - val mae: 0.4855
Epoch 205/250
35 - val loss: 0.2378 - val mae: 0.4877
Epoch 206/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0079 - mae: 0.07
33 - val loss: 0.2399 - val mae: 0.4898
Epoch 207/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0078 - mae: 0.07
31 - val loss: 0.2421 - val mae: 0.4920
Epoch 208/250
1/1 [=============== ] - 0s 34ms/step - loss: 0.0078 - mae: 0.07
```

```
28 - val_loss: 0.2442 - val_mae: 0.4942
Epoch 209/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0077 - mae: 0.07
26 - val_loss: 0.2464 - val_mae: 0.4964
Epoch 210/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0076 - mae: 0.07
24 - val_loss: 0.2486 - val_mae: 0.4986
Epoch 211/250
21 - val_loss: 0.2508 - val_mae: 0.5008
Epoch 212/250
1/1 [============ ] - 0s 42ms/step - loss: 0.0074 - mae: 0.07
19 - val_loss: 0.2530 - val_mae: 0.5030
Epoch 213/250
1/1 [============] - 0s 62ms/step - loss: 0.0074 - mae: 0.07
16 - val_loss: 0.2553 - val_mae: 0.5052
Epoch 214/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0073 - mae: 0.07
14 - val_loss: 0.2575 - val_mae: 0.5075
Epoch 215/250
11 - val_loss: 0.2598 - val_mae: 0.5097
Epoch 216/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0072 - mae: 0.07
09 - val_loss: 0.2621 - val_mae: 0.5119
Epoch 217/250
06 - val_loss: 0.2644 - val_mae: 0.5142
Epoch 218/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0070 - mae: 0.07
04 - val_loss: 0.2667 - val_mae: 0.5164
Epoch 219/250
01 - val_loss: 0.2690 - val_mae: 0.5187
Epoch 220/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0069 - mae: 0.06
98 - val_loss: 0.2714 - val_mae: 0.5209
Epoch 221/250
96 - val_loss: 0.2737 - val_mae: 0.5232
Epoch 222/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0068 - mae: 0.06
93 - val_loss: 0.2761 - val_mae: 0.5255
Epoch 223/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0067 - mae: 0.06
90 - val_loss: 0.2785 - val_mae: 0.5278
Epoch 224/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0066 - mae: 0.06
87 - val_loss: 0.2810 - val_mae: 0.5301
Epoch 225/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0066 - mae: 0.06
84 - val loss: 0.2834 - val mae: 0.5324
Epoch 226/250
1/1 [===========] - 0s 35ms/step - loss: 0.0065 - mae: 0.06
82 - val loss: 0.2859 - val mae: 0.5347
Epoch 227/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0064 - mae: 0.06
79 - val loss: 0.2884 - val mae: 0.5370
Epoch 228/250
76 - val loss: 0.2908 - val mae: 0.5393
Epoch 229/250
1/1 [============= ] - 0s 56ms/step - loss: 0.0063 - mae: 0.06
73 - val loss: 0.2934 - val mae: 0.5416
Epoch 230/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0063 - mae: 0.06
70 - val loss: 0.2959 - val mae: 0.5439
Epoch 231/250
1/1 [=============== ] - 0s 29ms/step - loss: 0.0062 - mae: 0.06
```

```
67 - val_loss: 0.2984 - val_mae: 0.5463
Epoch 232/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0061 - mae: 0.06
64 - val_loss: 0.3010 - val_mae: 0.5486
Epoch 233/250
1/1 [============ ] - 0s 40ms/step - loss: 0.0061 - mae: 0.06
61 - val_loss: 0.3035 - val_mae: 0.5509
Epoch 234/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0060 - mae: 0.06
58 - val_loss: 0.3061 - val_mae: 0.5532
Epoch 235/250
1/1 [=========== ] - 0s 37ms/step - loss: 0.0060 - mae: 0.06
55 - val_loss: 0.3087 - val_mae: 0.5556
Epoch 236/250
1/1 [=========== ] - 0s 41ms/step - loss: 0.0059 - mae: 0.06
52 - val_loss: 0.3113 - val_mae: 0.5579
Epoch 237/250
1/1 [============ ] - 0s 62ms/step - loss: 0.0059 - mae: 0.06
49 - val_loss: 0.3139 - val_mae: 0.5602
Epoch 238/250
46 - val_loss: 0.3165 - val_mae: 0.5626
Epoch 239/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0057 - mae: 0.06
43 - val_loss: 0.3191 - val_mae: 0.5649
Epoch 240/250
40 - val_loss: 0.3218 - val_mae: 0.5672
Epoch 241/250
1/1 [============= ] - 0s 65ms/step - loss: 0.0056 - mae: 0.06
37 - val_loss: 0.3244 - val_mae: 0.5696
Epoch 242/250
34 - val_loss: 0.3271 - val_mae: 0.5719
Epoch 243/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0055 - mae: 0.06
32 - val_loss: 0.3298 - val_mae: 0.5743
Epoch 244/250
1/1 [============== ] - 0s 57ms/step - loss: 0.0055 - mae: 0.06
29 - val_loss: 0.3325 - val_mae: 0.5766
Epoch 245/250
1/1 [============== ] - 0s 68ms/step - loss: 0.0054 - mae: 0.06
26 - val_loss: 0.3352 - val_mae: 0.5789
Epoch 246/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0054 - mae: 0.06
23 - val_loss: 0.3379 - val_mae: 0.5813
Epoch 247/250
1/1 [============ ] - 0s 59ms/step - loss: 0.0053 - mae: 0.06
20 - val_loss: 0.3406 - val_mae: 0.5836
Epoch 248/250
1/1 [============ ] - 0s 80ms/step - loss: 0.0053 - mae: 0.06
17 - val loss: 0.3434 - val mae: 0.5860
Epoch 249/250
1/1 [===========] - 0s 58ms/step - loss: 0.0052 - mae: 0.06
14 - val loss: 0.3461 - val mae: 0.5883
Epoch 250/250
1/1 [============= ] - 0s 54ms/step - loss: 0.0052 - mae: 0.06
11 - val loss: 0.3489 - val mae: 0.5906
Epoch 1/250
1/1 [============= ] - 1s 1s/step - loss: 11.6190 - mae: 3.381
8 - val loss: 13.2496 - val mae: 3.6400
Epoch 2/250
1/1 [============ ] - 0s 60ms/step - loss: 10.9424 - mae: 3.2
795 - val_loss: 12.6334 - val_mae: 3.5543
Epoch 3/250
1/1 [=============== ] - 0s 49ms/step - loss: 10.2251 - mae: 3.1
672 - val loss: 12.0045 - val mae: 3.4647
Epoch 4/250
1/1 [=============== ] - 0s 40ms/step - loss: 9.4562 - mae: 3.04
```

```
15 - val_loss: 11.3405 - val_mae: 3.3676
Epoch 5/250
96 - val_loss: 10.6307 - val_mae: 3.2605
Epoch 6/250
1/1 [============= ] - 0s 36ms/step - loss: 7.7574 - mae: 2.73
90 - val_loss: 9.8627 - val_mae: 3.1405
Epoch 7/250
71 - val_loss: 9.0242 - val_mae: 3.0040
Epoch 8/250
11 - val_loss: 8.1137 - val_mae: 2.8485
Epoch 9/250
89 - val_loss: 7.1394 - val_mae: 2.6720
Epoch 10/250
82 - val_loss: 6.1128 - val_mae: 2.4724
Epoch 11/250
37 - val_loss: 5.0462 - val_mae: 2.2464
Epoch 12/250
1/1 [============== ] - 0s 38ms/step - loss: 2.2714 - mae: 1.30
34 - val_loss: 3.9492 - val_mae: 1.9873
Epoch 13/250
72 - val_loss: 2.8496 - val_mae: 1.6881
Epoch 14/250
1/1 [============= ] - 0s 39ms/step - loss: 1.1707 - mae: 0.85
21 - val_loss: 1.8215 - val_mae: 1.3496
Epoch 15/250
49 - val_loss: 0.9710 - val_mae: 0.9854
Epoch 16/250
1/1 [============= ] - 0s 35ms/step - loss: 0.7310 - mae: 0.73
04 - val_loss: 0.3842 - val_mae: 0.6198
Epoch 17/250
62 - val_loss: 0.0792 - val_mae: 0.2814
Epoch 18/250
1/1 [============== ] - 0s 37ms/step - loss: 0.6456 - mae: 0.67
18 - val_loss: 1.7508e-05 - val_mae: 0.0042
Epoch 19/250
1/1 [============== ] - 0s 34ms/step - loss: 0.6379 - mae: 0.69
43 - val_loss: 0.0477 - val_mae: 0.2185
Epoch 20/250
1/1 [============= ] - 0s 35ms/step - loss: 0.6302 - mae: 0.67
87 - val_loss: 0.1248 - val_mae: 0.3533
Epoch 21/250
1/1 [============ ] - 0s 36ms/step - loss: 0.6245 - mae: 0.65
59 - val loss: 0.1688 - val mae: 0.4109
Epoch 22/250
1/1 [===========] - 0s 35ms/step - loss: 0.6212 - mae: 0.64
01 - val loss: 0.1618 - val mae: 0.4023
Epoch 23/250
1/1 [============ ] - 0s 36ms/step - loss: 0.6110 - mae: 0.64
16 - val loss: 0.1178 - val mae: 0.3432
Epoch 24/250
40 - val loss: 0.0631 - val mae: 0.2512
Epoch 25/250
1/1 [============= ] - 0s 37ms/step - loss: 0.5417 - mae: 0.61
08 - val loss: 0.0203 - val mae: 0.1425
Epoch 26/250
1/1 [============== ] - 0s 36ms/step - loss: 0.4819 - mae: 0.57
44 - val loss: 9.3049e-04 - val mae: 0.0305
Epoch 27/250
1/1 [============== ] - 0s 37ms/step - loss: 0.4131 - mae: 0.52
```

```
92 - val_loss: 0.0057 - val_mae: 0.0752
Epoch 28/250
27 - val_loss: 0.0284 - val_mae: 0.1684
Epoch 29/250
75 - val_loss: 0.0606 - val_mae: 0.2462
Epoch 30/250
1/1 [============= ] - 0s 35ms/step - loss: 0.2314 - mae: 0.38
87 - val_loss: 0.0946 - val_mae: 0.3075
Epoch 31/250
1/1 [============= ] - 0s 37ms/step - loss: 0.1940 - mae: 0.35
48 - val_loss: 0.1249 - val_mae: 0.3534
Epoch 32/250
1/1 [============= ] - 0s 35ms/step - loss: 0.1705 - mae: 0.32
81 - val_loss: 0.1490 - val_mae: 0.3860
Epoch 33/250
41 - val_loss: 0.1663 - val_mae: 0.4078
Epoch 34/250
17 - val_loss: 0.1777 - val_mae: 0.4215
Epoch 35/250
1/1 [============== ] - 0s 37ms/step - loss: 0.1605 - mae: 0.32
80 - val_loss: 0.1849 - val_mae: 0.4299
Epoch 36/250
15 - val_loss: 0.1896 - val_mae: 0.4355
Epoch 37/250
1/1 [============== ] - 0s 43ms/step - loss: 0.1690 - mae: 0.34
97 - val_loss: 0.1937 - val_mae: 0.4401
Epoch 38/250
83 - val_loss: 0.1982 - val_mae: 0.4452
Epoch 39/250
1/1 [============== ] - 0s 38ms/step - loss: 0.1647 - mae: 0.33
94 - val_loss: 0.2040 - val_mae: 0.4517
Epoch 40/250
81 - val_loss: 0.2114 - val_mae: 0.4598
Epoch 41/250
1/1 [============== ] - 0s 55ms/step - loss: 0.1449 - mae: 0.31
70 - val_loss: 0.2201 - val_mae: 0.4691
Epoch 42/250
1/1 [============== ] - 0s 61ms/step - loss: 0.1323 - mae: 0.29
89 - val_loss: 0.2296 - val_mae: 0.4792
Epoch 43/250
95 - val_loss: 0.2390 - val_mae: 0.4888
Epoch 44/250
1/1 [============= ] - 0s 34ms/step - loss: 0.1092 - mae: 0.26
60 - val loss: 0.2471 - val mae: 0.4971
Epoch 45/250
1/1 [===========] - 0s 33ms/step - loss: 0.1003 - mae: 0.25
48 - val loss: 0.2529 - val mae: 0.5029
Epoch 46/250
1/1 [============= ] - 0s 36ms/step - loss: 0.0933 - mae: 0.25
06 - val loss: 0.2553 - val mae: 0.5052
Epoch 47/250
32 - val loss: 0.2534 - val mae: 0.5034
Epoch 48/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0828 - mae: 0.23
66 - val loss: 0.2469 - val mae: 0.4969
Epoch 49/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0781 - mae: 0.22
95 - val loss: 0.2357 - val mae: 0.4855
Epoch 50/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0734 - mae: 0.22
```

```
08 - val_loss: 0.2205 - val_mae: 0.4695
Epoch 51/250
18 - val_loss: 0.2020 - val_mae: 0.4494
Epoch 52/250
1/1 [============= ] - 0s 43ms/step - loss: 0.0647 - mae: 0.19
97 - val_loss: 0.1814 - val_mae: 0.4259
Epoch 53/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0614 - mae: 0.18
66 - val_loss: 0.1602 - val_mae: 0.4002
Epoch 54/250
25 - val_loss: 0.1395 - val_mae: 0.3735
Epoch 55/250
1/1 [============ ] - 0s 39ms/step - loss: 0.0580 - mae: 0.18
09 - val_loss: 0.1204 - val_mae: 0.3470
Epoch 56/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0577 - mae: 0.18
02 - val_loss: 0.1039 - val_mae: 0.3223
Epoch 57/250
90 - val loss: 0.0902 - val mae: 0.3003
Epoch 58/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0577 - mae: 0.17
72 - val_loss: 0.0796 - val_mae: 0.2821
Epoch 59/250
51 - val_loss: 0.0719 - val_mae: 0.2682
Epoch 60/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0556 - mae: 0.17
28 - val_loss: 0.0670 - val_mae: 0.2589
Epoch 61/250
91 - val_loss: 0.0645 - val_mae: 0.2540
Epoch 62/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0507 - mae: 0.16
61 - val_loss: 0.0641 - val_mae: 0.2532
Epoch 63/250
45 - val_loss: 0.0654 - val_mae: 0.2558
Epoch 64/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0449 - mae: 0.16
34 - val_loss: 0.0682 - val_mae: 0.2612
Epoch 65/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0424 - mae: 0.16
21 - val_loss: 0.0721 - val_mae: 0.2684
Epoch 66/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0405 - mae: 0.16
05 - val_loss: 0.0767 - val_mae: 0.2769
Epoch 67/250
1/1 [============= ] - 0s 48ms/step - loss: 0.0392 - mae: 0.16
08 - val loss: 0.0817 - val mae: 0.2858
Epoch 68/250
1/1 [===========] - 0s 51ms/step - loss: 0.0383 - mae: 0.16
08 - val loss: 0.0869 - val mae: 0.2948
Epoch 69/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0379 - mae: 0.16
02 - val loss: 0.0920 - val mae: 0.3034
Epoch 70/250
09 - val loss: 0.0969 - val mae: 0.3113
Epoch 71/250
1/1 [============= ] - 0s 39ms/step - loss: 0.0373 - mae: 0.16
10 - val_loss: 0.1014 - val_mae: 0.3185
Epoch 72/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0369 - mae: 0.16
05 - val loss: 0.1056 - val mae: 0.3249
Epoch 73/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0363 - mae: 0.15
```

```
91 - val_loss: 0.1093 - val_mae: 0.3305
Epoch 74/250
67 - val_loss: 0.1126 - val_mae: 0.3355
Epoch 75/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0346 - mae: 0.15
35 - val_loss: 0.1155 - val_mae: 0.3398
Epoch 76/250
02 - val_loss: 0.1180 - val_mae: 0.3435
Epoch 77/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0328 - mae: 0.14
78 - val_loss: 0.1200 - val_mae: 0.3465
Epoch 78/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0319 - mae: 0.14
59 - val_loss: 0.1216 - val_mae: 0.3487
Epoch 79/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0311 - mae: 0.14
38 - val_loss: 0.1226 - val_mae: 0.3501
Epoch 80/250
14 - val_loss: 0.1228 - val_mae: 0.3504
Epoch 81/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0299 - mae: 0.13
88 - val_loss: 0.1221 - val_mae: 0.3495
Epoch 82/250
61 - val_loss: 0.1205 - val_mae: 0.3471
Epoch 83/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0291 - mae: 0.13
34 - val_loss: 0.1179 - val_mae: 0.3433
Epoch 84/250
11 - val_loss: 0.1142 - val_mae: 0.3380
Epoch 85/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0283 - mae: 0.13
03 - val_loss: 0.1098 - val_mae: 0.3313
Epoch 86/250
93 - val_loss: 0.1046 - val_mae: 0.3234
Epoch 87/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0275 - mae: 0.12
82 - val_loss: 0.0990 - val_mae: 0.3146
Epoch 88/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0270 - mae: 0.12
70 - val_loss: 0.0933 - val_mae: 0.3054
Epoch 89/250
1/1 [============= ] - 0s 50ms/step - loss: 0.0265 - mae: 0.12
64 - val_loss: 0.0877 - val_mae: 0.2962
Epoch 90/250
59 - val loss: 0.0827 - val mae: 0.2876
Epoch 91/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0257 - mae: 0.12
55 - val loss: 0.0784 - val mae: 0.2801
Epoch 92/250
1/1 [============ ] - 0s 43ms/step - loss: 0.0253 - mae: 0.12
51 - val loss: 0.0752 - val mae: 0.2741
Epoch 93/250
49 - val loss: 0.0730 - val mae: 0.2702
Epoch 94/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0247 - mae: 0.12
46 - val_loss: 0.0721 - val_mae: 0.2684
Epoch 95/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0244 - mae: 0.12
42 - val loss: 0.0724 - val mae: 0.2690
Epoch 96/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0241 - mae: 0.12
```

```
37 - val_loss: 0.0739 - val_mae: 0.2719
Epoch 97/250
30 - val_loss: 0.0767 - val_mae: 0.2769
Epoch 98/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0234 - mae: 0.12
22 - val_loss: 0.0804 - val_mae: 0.2835
Epoch 99/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0231 - mae: 0.12
12 - val_loss: 0.0849 - val_mae: 0.2914
Epoch 100/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0228 - mae: 0.12
01 - val_loss: 0.0900 - val_mae: 0.3000
Epoch 101/250
89 - val_loss: 0.0953 - val_mae: 0.3087
Epoch 102/250
1/1 [============] - 0s 37ms/step - loss: 0.0221 - mae: 0.11
76 - val_loss: 0.1005 - val_mae: 0.3169
Epoch 103/250
63 - val_loss: 0.1051 - val_mae: 0.3242
Epoch 104/250
1/1 [============== ] - 0s 42ms/step - loss: 0.0216 - mae: 0.11
51 - val_loss: 0.1090 - val_mae: 0.3301
Epoch 105/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0214 - mae: 0.11
38 - val_loss: 0.1118 - val_mae: 0.3344
Epoch 106/250
27 - val_loss: 0.1135 - val_mae: 0.3369
Epoch 107/250
16 - val_loss: 0.1139 - val_mae: 0.3375
Epoch 108/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0206 - mae: 0.11
06 - val_loss: 0.1133 - val_mae: 0.3366
Epoch 109/250
97 - val_loss: 0.1117 - val_mae: 0.3342
Epoch 110/250
1/1 [============== ] - 0s 58ms/step - loss: 0.0201 - mae: 0.10
88 - val_loss: 0.1095 - val_mae: 0.3309
Epoch 111/250
1/1 [============== ] - 0s 45ms/step - loss: 0.0198 - mae: 0.10
80 - val_loss: 0.1068 - val_mae: 0.3268
Epoch 112/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0196 - mae: 0.10
73 - val_loss: 0.1041 - val_mae: 0.3226
Epoch 113/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0193 - mae: 0.10
69 - val loss: 0.1015 - val mae: 0.3186
Epoch 114/250
1/1 [===========] - 0s 39ms/step - loss: 0.0191 - mae: 0.10
65 - val loss: 0.0993 - val mae: 0.3151
Epoch 115/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0189 - mae: 0.10
61 - val loss: 0.0977 - val mae: 0.3125
Epoch 116/250
56 - val loss: 0.0967 - val mae: 0.3109
Epoch 117/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0185 - mae: 0.10
51 - val loss: 0.0963 - val mae: 0.3104
Epoch 118/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0183 - mae: 0.10
45 - val loss: 0.0967 - val mae: 0.3110
Epoch 119/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0181 - mae: 0.10
```

```
38 - val_loss: 0.0977 - val_mae: 0.3126
Epoch 120/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0179 - mae: 0.10
33 - val_loss: 0.0992 - val_mae: 0.3150
Epoch 121/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0177 - mae: 0.10
28 - val_loss: 0.1012 - val_mae: 0.3181
Epoch 122/250
22 - val_loss: 0.1034 - val_mae: 0.3216
Epoch 123/250
17 - val_loss: 0.1058 - val_mae: 0.3252
Epoch 124/250
11 - val_loss: 0.1081 - val_mae: 0.3288
Epoch 125/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0169 - mae: 0.10
06 - val_loss: 0.1103 - val_mae: 0.3322
Epoch 126/250
01 - val_loss: 0.1123 - val_mae: 0.3352
Epoch 127/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0165 - mae: 0.09
95 - val_loss: 0.1140 - val_mae: 0.3377
Epoch 128/250
90 - val_loss: 0.1154 - val_mae: 0.3397
Epoch 129/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0162 - mae: 0.09
84 - val_loss: 0.1164 - val_mae: 0.3412
Epoch 130/250
79 - val_loss: 0.1171 - val_mae: 0.3422
Epoch 131/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0158 - mae: 0.09
74 - val_loss: 0.1175 - val_mae: 0.3428
Epoch 132/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0157 - mae: 0.09
68 - val_loss: 0.1177 - val_mae: 0.3430
Epoch 133/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0155 - mae: 0.09
63 - val_loss: 0.1176 - val_mae: 0.3430
Epoch 134/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0153 - mae: 0.09
57 - val_loss: 0.1175 - val_mae: 0.3428
Epoch 135/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0152 - mae: 0.09
52 - val_loss: 0.1173 - val_mae: 0.3425
Epoch 136/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0150 - mae: 0.09
48 - val loss: 0.1171 - val mae: 0.3422
Epoch 137/250
1/1 [===========] - 0s 31ms/step - loss: 0.0149 - mae: 0.09
44 - val loss: 0.1170 - val mae: 0.3420
Epoch 138/250
39 - val loss: 0.1169 - val mae: 0.3419
Epoch 139/250
35 - val loss: 0.1170 - val mae: 0.3420
Epoch 140/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0144 - mae: 0.09
31 - val_loss: 0.1171 - val_mae: 0.3422
Epoch 141/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0143 - mae: 0.09
27 - val loss: 0.1174 - val mae: 0.3427
Epoch 142/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0141 - mae: 0.09
```

```
23 - val_loss: 0.1179 - val_mae: 0.3433
Epoch 143/250
1/1 [============= ] - 0s 29ms/step - loss: 0.0140 - mae: 0.09
19 - val_loss: 0.1184 - val_mae: 0.3441
Epoch 144/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0138 - mae: 0.09
15 - val_loss: 0.1191 - val_mae: 0.3451
Epoch 145/250
10 - val_loss: 0.1199 - val_mae: 0.3462
Epoch 146/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0136 - mae: 0.09
06 - val_loss: 0.1207 - val_mae: 0.3474
Epoch 147/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0134 - mae: 0.09
01 - val_loss: 0.1216 - val_mae: 0.3487
Epoch 148/250
1/1 [=========== ] - 0s 31ms/step - loss: 0.0133 - mae: 0.08
96 - val_loss: 0.1225 - val_mae: 0.3500
Epoch 149/250
90 - val_loss: 0.1234 - val_mae: 0.3513
Epoch 150/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0130 - mae: 0.08
85 - val_loss: 0.1243 - val_mae: 0.3525
Epoch 151/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0129 - mae: 0.08
80 - val_loss: 0.1251 - val_mae: 0.3537
Epoch 152/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0128 - mae: 0.08
75 - val_loss: 0.1258 - val_mae: 0.3547
Epoch 153/250
70 - val_loss: 0.1265 - val_mae: 0.3557
Epoch 154/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0125 - mae: 0.08
65 - val_loss: 0.1271 - val_mae: 0.3565
Epoch 155/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0124 - mae: 0.08
60 - val_loss: 0.1276 - val_mae: 0.3572
Epoch 156/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0123 - mae: 0.08
56 - val_loss: 0.1280 - val_mae: 0.3578
Epoch 157/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0122 - mae: 0.08
52 - val_loss: 0.1284 - val_mae: 0.3583
Epoch 158/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0120 - mae: 0.08
47 - val_loss: 0.1287 - val_mae: 0.3587
Epoch 159/250
1/1 [============] - 0s 29ms/step - loss: 0.0119 - mae: 0.08
43 - val loss: 0.1290 - val mae: 0.3591
Epoch 160/250
1/1 [===========] - 0s 30ms/step - loss: 0.0118 - mae: 0.08
39 - val loss: 0.1292 - val mae: 0.3595
Epoch 161/250
35 - val loss: 0.1295 - val mae: 0.3598
Epoch 162/250
30 - val loss: 0.1298 - val mae: 0.3602
Epoch 163/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0115 - mae: 0.08
26 - val loss: 0.1300 - val mae: 0.3606
Epoch 164/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0114 - mae: 0.08
22 - val loss: 0.1304 - val mae: 0.3610
Epoch 165/250
1/1 [=============== ] - 0s 34ms/step - loss: 0.0113 - mae: 0.08
```

```
18 - val_loss: 0.1307 - val_mae: 0.3615
Epoch 166/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0111 - mae: 0.08
13 - val_loss: 0.1311 - val_mae: 0.3620
Epoch 167/250
1/1 [=========== ] - 0s 30ms/step - loss: 0.0110 - mae: 0.08
09 - val_loss: 0.1315 - val_mae: 0.3626
Epoch 168/250
1/1 [=========== ] - 0s 38ms/step - loss: 0.0109 - mae: 0.08
05 - val_loss: 0.1319 - val_mae: 0.3632
Epoch 169/250
1/1 [============ ] - 0s 37ms/step - loss: 0.0108 - mae: 0.08
01 - val_loss: 0.1324 - val_mae: 0.3638
Epoch 170/250
1/1 [============= ] - 0s 63ms/step - loss: 0.0107 - mae: 0.07
97 - val_loss: 0.1328 - val_mae: 0.3644
Epoch 171/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0106 - mae: 0.07
93 - val_loss: 0.1333 - val_mae: 0.3651
Epoch 172/250
89 - val_loss: 0.1337 - val_mae: 0.3657
Epoch 173/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0104 - mae: 0.07
85 - val_loss: 0.1342 - val_mae: 0.3663
Epoch 174/250
82 - val_loss: 0.1346 - val_mae: 0.3669
Epoch 175/250
79 - val_loss: 0.1350 - val_mae: 0.3674
Epoch 176/250
75 - val_loss: 0.1354 - val_mae: 0.3679
Epoch 177/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0101 - mae: 0.07
72 - val_loss: 0.1357 - val_mae: 0.3684
Epoch 178/250
68 - val_loss: 0.1360 - val_mae: 0.3688
Epoch 179/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0099 - mae: 0.07
65 - val_loss: 0.1363 - val_mae: 0.3692
Epoch 180/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0098 - mae: 0.07
61 - val_loss: 0.1366 - val_mae: 0.3696
Epoch 181/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0097 - mae: 0.07
58 - val_loss: 0.1368 - val_mae: 0.3699
Epoch 182/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0096 - mae: 0.07
55 - val loss: 0.1371 - val mae: 0.3702
Epoch 183/250
1/1 [===========] - 0s 31ms/step - loss: 0.0095 - mae: 0.07
51 - val loss: 0.1373 - val mae: 0.3706
Epoch 184/250
48 - val loss: 0.1375 - val mae: 0.3709
Epoch 185/250
45 - val loss: 0.1378 - val mae: 0.3712
Epoch 186/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0093 - mae: 0.07
41 - val loss: 0.1380 - val mae: 0.3715
Epoch 187/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0092 - mae: 0.07
38 - val loss: 0.1382 - val mae: 0.3718
Epoch 188/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0091 - mae: 0.07
```

```
35 - val_loss: 0.1385 - val_mae: 0.3721
Epoch 189/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0090 - mae: 0.07
32 - val_loss: 0.1387 - val_mae: 0.3724
Epoch 190/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0089 - mae: 0.07
28 - val_loss: 0.1390 - val_mae: 0.3728
Epoch 191/250
25 - val_loss: 0.1392 - val_mae: 0.3731
Epoch 192/250
22 - val_loss: 0.1395 - val_mae: 0.3735
Epoch 193/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0087 - mae: 0.07
18 - val_loss: 0.1397 - val_mae: 0.3738
Epoch 194/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0086 - mae: 0.07
15 - val_loss: 0.1400 - val_mae: 0.3741
Epoch 195/250
12 - val_loss: 0.1402 - val_mae: 0.3744
Epoch 196/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0084 - mae: 0.07
09 - val_loss: 0.1404 - val_mae: 0.3747
Epoch 197/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0083 - mae: 0.07
05 - val_loss: 0.1406 - val_mae: 0.3750
Epoch 198/250
02 - val_loss: 0.1409 - val_mae: 0.3753
Epoch 199/250
99 - val_loss: 0.1410 - val_mae: 0.3756
Epoch 200/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0081 - mae: 0.06
96 - val_loss: 0.1412 - val_mae: 0.3758
Epoch 201/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0080 - mae: 0.06
92 - val_loss: 0.1414 - val_mae: 0.3761
Epoch 202/250
1/1 [============== ] - 0s 48ms/step - loss: 0.0080 - mae: 0.06
89 - val_loss: 0.1416 - val_mae: 0.3763
Epoch 203/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0079 - mae: 0.06
86 - val_loss: 0.1418 - val_mae: 0.3766
Epoch 204/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0078 - mae: 0.06
83 - val_loss: 0.1420 - val_mae: 0.3768
Epoch 205/250
1/1 [============= ] - 0s 44ms/step - loss: 0.0077 - mae: 0.06
79 - val loss: 0.1421 - val mae: 0.3770
Epoch 206/250
1/1 [===========] - 0s 44ms/step - loss: 0.0077 - mae: 0.06
76 - val loss: 0.1423 - val mae: 0.3772
Epoch 207/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0076 - mae: 0.06
73 - val loss: 0.1425 - val mae: 0.3775
Epoch 208/250
70 - val loss: 0.1426 - val mae: 0.3777
Epoch 209/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0074 - mae: 0.06
66 - val loss: 0.1428 - val mae: 0.3779
Epoch 210/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0074 - mae: 0.06
63 - val loss: 0.1429 - val mae: 0.3781
Epoch 211/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0073 - mae: 0.06
```

```
60 - val_loss: 0.1431 - val_mae: 0.3783
Epoch 212/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0072 - mae: 0.06
57 - val_loss: 0.1432 - val_mae: 0.3785
Epoch 213/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0071 - mae: 0.06
53 - val_loss: 0.1434 - val_mae: 0.3787
Epoch 214/250
1/1 [============ ] - 0s 34ms/step - loss: 0.0071 - mae: 0.06
50 - val_loss: 0.1436 - val_mae: 0.3789
Epoch 215/250
1/1 [=========== ] - 0s 29ms/step - loss: 0.0070 - mae: 0.06
47 - val_loss: 0.1437 - val_mae: 0.3791
Epoch 216/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0069 - mae: 0.06
44 - val_loss: 0.1439 - val_mae: 0.3793
Epoch 217/250
1/1 [=========== ] - 0s 30ms/step - loss: 0.0069 - mae: 0.06
41 - val_loss: 0.1440 - val_mae: 0.3795
Epoch 218/250
39 - val_loss: 0.1442 - val_mae: 0.3797
Epoch 219/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0067 - mae: 0.06
36 - val_loss: 0.1443 - val_mae: 0.3799
Epoch 220/250
33 - val_loss: 0.1445 - val_mae: 0.3801
Epoch 221/250
1/1 [============= ] - 0s 48ms/step - loss: 0.0066 - mae: 0.06
30 - val_loss: 0.1447 - val_mae: 0.3803
Epoch 222/250
27 - val_loss: 0.1448 - val_mae: 0.3805
Epoch 223/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0065 - mae: 0.06
24 - val_loss: 0.1450 - val_mae: 0.3807
Epoch 224/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0064 - mae: 0.06
21 - val_loss: 0.1451 - val_mae: 0.3809
Epoch 225/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0063 - mae: 0.06
18 - val_loss: 0.1453 - val_mae: 0.3811
Epoch 226/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0063 - mae: 0.06
16 - val_loss: 0.1454 - val_mae: 0.3813
Epoch 227/250
1/1 [============ ] - 0s 51ms/step - loss: 0.0062 - mae: 0.06
13 - val_loss: 0.1455 - val_mae: 0.3815
Epoch 228/250
1/1 [============] - 0s 46ms/step - loss: 0.0061 - mae: 0.06
10 - val loss: 0.1457 - val mae: 0.3817
Epoch 229/250
1/1 [===========] - 0s 49ms/step - loss: 0.0061 - mae: 0.06
07 - val loss: 0.1458 - val mae: 0.3819
Epoch 230/250
05 - val loss: 0.1460 - val mae: 0.3820
Epoch 231/250
02 - val loss: 0.1461 - val mae: 0.3822
Epoch 232/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0059 - mae: 0.05
99 - val loss: 0.1462 - val mae: 0.3824
Epoch 233/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0058 - mae: 0.05
96 - val loss: 0.1464 - val mae: 0.3826
Epoch 234/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0057 - mae: 0.05
```

```
94 - val_loss: 0.1465 - val_mae: 0.3828
Epoch 235/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0057 - mae: 0.05
91 - val_loss: 0.1467 - val_mae: 0.3830
Epoch 236/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0056 - mae: 0.05
88 - val_loss: 0.1469 - val_mae: 0.3832
Epoch 237/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0056 - mae: 0.05
85 - val_loss: 0.1470 - val_mae: 0.3834
Epoch 238/250
1/1 [=========== ] - 0s 41ms/step - loss: 0.0055 - mae: 0.05
82 - val_loss: 0.1472 - val_mae: 0.3836
Epoch 239/250
80 - val_loss: 0.1473 - val_mae: 0.3838
Epoch 240/250
1/1 [============] - 0s 47ms/step - loss: 0.0054 - mae: 0.05
77 - val_loss: 0.1475 - val_mae: 0.3840
Epoch 241/250
74 - val_loss: 0.1476 - val_mae: 0.3842
Epoch 242/250
1/1 [============= ] - 0s 46ms/step - loss: 0.0052 - mae: 0.05
71 - val_loss: 0.1478 - val_mae: 0.3844
Epoch 243/250
68 - val_loss: 0.1479 - val_mae: 0.3846
Epoch 244/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0051 - mae: 0.05
66 - val_loss: 0.1481 - val_mae: 0.3848
Epoch 245/250
63 - val_loss: 0.1482 - val_mae: 0.3850
Epoch 246/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0050 - mae: 0.05
60 - val_loss: 0.1484 - val_mae: 0.3852
Epoch 247/250
57 - val_loss: 0.1486 - val_mae: 0.3854
Epoch 248/250
1/1 [============== ] - 0s 47ms/step - loss: 0.0049 - mae: 0.05
54 - val_loss: 0.1487 - val_mae: 0.3856
Epoch 249/250
1/1 [============== ] - 0s 46ms/step - loss: 0.0048 - mae: 0.05
51 - val_loss: 0.1489 - val_mae: 0.3859
Epoch 250/250
1/1 [============= ] - 0s 48ms/step - loss: 0.0048 - mae: 0.05
49 - val_loss: 0.1491 - val_mae: 0.3861
Epoch 1/250
1548 - val loss: 5.2576 - val mae: 2.2929
Epoch 2/250
1/1 [===========] - 0s 31ms/step - loss: 9.4333 - mae: 3.02
25 - val loss: 4.4308 - val mae: 2.1049
Epoch 3/250
1/1 [============== ] - 0s 33ms/step - loss: 8.6085 - mae: 2.87
69 - val loss: 3.6079 - val mae: 1.8994
Epoch 4/250
75 - val loss: 2.8041 - val mae: 1.6746
Epoch 5/250
1/1 [============== ] - 0s 30ms/step - loss: 6.8866 - mae: 2.54
30 - val loss: 2.0363 - val mae: 1.4270
Epoch 6/250
21 - val loss: 1.3322 - val mae: 1.1542
Epoch 7/250
```

```
39 - val_loss: 0.7308 - val_mae: 0.8548
Epoch 8/250
96 - val_loss: 0.2786 - val_mae: 0.5279
Epoch 9/250
09 - val_loss: 0.0299 - val_mae: 0.1729
Epoch 10/250
59 - val_loss: 0.0438 - val_mae: 0.2092
Epoch 11/250
77 - val_loss: 0.3774 - val_mae: 0.6143
Epoch 12/250
1/1 [============= ] - 0s 31ms/step - loss: 1.8968 - mae: 1.16
60 - val_loss: 1.0674 - val_mae: 1.0332
Epoch 13/250
94 - val_loss: 2.1023 - val_mae: 1.4499
Epoch 14/250
1/1 [============= ] - 0s 31ms/step - loss: 1.6020 - mae: 0.95
78 - val_loss: 3.3818 - val_mae: 1.8390
Epoch 15/250
1/1 [============= ] - 0s 33ms/step - loss: 1.6687 - mae: 0.96
35 - val_loss: 4.6989 - val_mae: 2.1677
Epoch 16/250
96 - val_loss: 5.7696 - val_mae: 2.4020
Epoch 17/250
1/1 [============= ] - 0s 51ms/step - loss: 1.8304 - mae: 1.02
16 - val_loss: 6.3835 - val_mae: 2.5266
Epoch 18/250
63 - val_loss: 6.4897 - val_mae: 2.5475
Epoch 19/250
1/1 [============= ] - 0s 48ms/step - loss: 1.6480 - mae: 0.96
52 - val_loss: 6.1634 - val_mae: 2.4826
Epoch 20/250
72 - val_loss: 5.5379 - val_mae: 2.3533
Epoch 21/250
1/1 [============== ] - 0s 32ms/step - loss: 1.2105 - mae: 0.81
14 - val_loss: 4.7538 - val_mae: 2.1803
Epoch 22/250
1/1 [============== ] - 0s 33ms/step - loss: 0.9877 - mae: 0.73
16 - val_loss: 3.9301 - val_mae: 1.9825
Epoch 23/250
1/1 [============ ] - 0s 37ms/step - loss: 0.7985 - mae: 0.65
97 - val_loss: 3.1525 - val_mae: 1.7755
Epoch 24/250
1/1 [============= ] - 0s 32ms/step - loss: 0.6551 - mae: 0.60
01 - val loss: 2.4721 - val mae: 1.5723
Epoch 25/250
1/1 [=========== ] - 0s 30ms/step - loss: 0.5590 - mae: 0.56
58 - val loss: 1.9110 - val mae: 1.3824
Epoch 26/250
1/1 [============= ] - 0s 31ms/step - loss: 0.5042 - mae: 0.57
05 - val loss: 1.4704 - val mae: 1.2126
Epoch 27/250
68 - val loss: 1.1389 - val mae: 1.0672
Epoch 28/250
1/1 [============= ] - 0s 28ms/step - loss: 0.4762 - mae: 0.58
56 - val loss: 0.8996 - val mae: 0.9485
Epoch 29/250
1/1 [============== ] - 0s 44ms/step - loss: 0.4807 - mae: 0.59
25 - val loss: 0.7345 - val mae: 0.8570
Epoch 30/250
1/1 [=============== ] - 0s 41ms/step - loss: 0.4859 - mae: 0.59
```

```
40 - val_loss: 0.6278 - val_mae: 0.7924
Epoch 31/250
1/1 [============= ] - 0s 43ms/step - loss: 0.4866 - mae: 0.58
99 - val_loss: 0.5676 - val_mae: 0.7534
Epoch 32/250
04 - val_loss: 0.5454 - val_mae: 0.7385
Epoch 33/250
1/1 [============ ] - 0s 33ms/step - loss: 0.4655 - mae: 0.56
59 - val_loss: 0.5562 - val_mae: 0.7458
Epoch 34/250
1/1 [============ ] - 0s 31ms/step - loss: 0.4442 - mae: 0.54
69 - val_loss: 0.5975 - val_mae: 0.7730
Epoch 35/250
1/1 [============= ] - 0s 29ms/step - loss: 0.4181 - mae: 0.52
41 - val_loss: 0.6687 - val_mae: 0.8177
Epoch 36/250
1/1 [============ ] - 0s 33ms/step - loss: 0.3898 - mae: 0.49
83 - val_loss: 0.7696 - val_mae: 0.8773
Epoch 37/250
04 - val_loss: 0.8998 - val_mae: 0.9486
Epoch 38/250
1/1 [============== ] - 0s 39ms/step - loss: 0.3362 - mae: 0.44
63 - val_loss: 1.0572 - val_mae: 1.0282
Epoch 39/250
16 - val_loss: 1.2374 - val_mae: 1.1124
Epoch 40/250
1/1 [============== ] - 0s 44ms/step - loss: 0.2984 - mae: 0.42
58 - val_loss: 1.4330 - val_mae: 1.1971
Epoch 41/250
14 - val_loss: 1.6334 - val_mae: 1.2781
Epoch 42/250
1/1 [============== ] - 0s 36ms/step - loss: 0.2787 - mae: 0.41
65 - val_loss: 1.8263 - val_mae: 1.3514
Epoch 43/250
10 - val_loss: 1.9984 - val_mae: 1.4136
Epoch 44/250
1/1 [============== ] - 0s 34ms/step - loss: 0.2681 - mae: 0.40
53 - val_loss: 2.1375 - val_mae: 1.4620
Epoch 45/250
1/1 [============== ] - 0s 37ms/step - loss: 0.2623 - mae: 0.39
85 - val_loss: 2.2348 - val_mae: 1.4949
Epoch 46/250
1/1 [============= ] - 0s 35ms/step - loss: 0.2545 - mae: 0.39
04 - val_loss: 2.2862 - val_mae: 1.5120
Epoch 47/250
1/1 [============] - 0s 32ms/step - loss: 0.2445 - mae: 0.38
13 - val loss: 2.2923 - val mae: 1.5140
Epoch 48/250
1/1 [============ ] - 0s 30ms/step - loss: 0.2328 - mae: 0.37
35 - val loss: 2.2587 - val mae: 1.5029
Epoch 49/250
1/1 [============= ] - 0s 32ms/step - loss: 0.2202 - mae: 0.36
66 - val loss: 2.1945 - val mae: 1.4814
Epoch 50/250
93 - val loss: 2.1107 - val mae: 1.4528
Epoch 51/250
1/1 [============= ] - 0s 34ms/step - loss: 0.1970 - mae: 0.35
20 - val_loss: 2.0186 - val_mae: 1.4208
Epoch 52/250
1/1 [============== ] - 0s 33ms/step - loss: 0.1880 - mae: 0.34
59 - val loss: 1.9287 - val mae: 1.3888
Epoch 53/250
1/1 [=============== ] - 0s 48ms/step - loss: 0.1812 - mae: 0.34
```

```
34 - val_loss: 1.8497 - val_mae: 1.3600
Epoch 54/250
04 - val_loss: 1.7884 - val_mae: 1.3373
Epoch 55/250
1/1 [============= ] - 0s 47ms/step - loss: 0.1728 - mae: 0.33
69 - val_loss: 1.7494 - val_mae: 1.3227
Epoch 56/250
44 - val_loss: 1.7359 - val_mae: 1.3176
Epoch 57/250
1/1 [============= ] - 0s 48ms/step - loss: 0.1669 - mae: 0.33
21 - val_loss: 1.7492 - val_mae: 1.3226
Epoch 58/250
1/1 [============= ] - 0s 39ms/step - loss: 0.1633 - mae: 0.32
84 - val_loss: 1.7890 - val_mae: 1.3375
Epoch 59/250
33 - val_loss: 1.8541 - val_mae: 1.3616
Epoch 60/250
71 - val_loss: 1.9417 - val_mae: 1.3935
Epoch 61/250
1/1 [=============== ] - 0s 48ms/step - loss: 0.1478 - mae: 0.31
04 - val_loss: 2.0483 - val_mae: 1.4312
Epoch 62/250
32 - val_loss: 2.1688 - val_mae: 1.4727
Epoch 63/250
55 - val_loss: 2.2969 - val_mae: 1.5155
Epoch 64/250
96 - val_loss: 2.4257 - val_mae: 1.5575
Epoch 65/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1264 - mae: 0.28
34 - val_loss: 2.5477 - val_mae: 1.5962
Epoch 66/250
72 - val_loss: 2.6560 - val_mae: 1.6297
Epoch 67/250
1/1 [============== ] - 0s 30ms/step - loss: 0.1190 - mae: 0.27
32 - val_loss: 2.7447 - val_mae: 1.6567
Epoch 68/250
1/1 [============== ] - 0s 33ms/step - loss: 0.1157 - mae: 0.26
97 - val_loss: 2.8099 - val_mae: 1.6763
Epoch 69/250
63 - val_loss: 2.8498 - val_mae: 1.6881
Epoch 70/250
1/1 [============= ] - 0s 32ms/step - loss: 0.1092 - mae: 0.26
31 - val loss: 2.8653 - val mae: 1.6927
Epoch 71/250
1/1 [============ ] - 0s 37ms/step - loss: 0.1057 - mae: 0.25
93 - val loss: 2.8594 - val mae: 1.6910
Epoch 72/250
50 - val loss: 2.8367 - val mae: 1.6842
Epoch 73/250
03 - val loss: 2.8028 - val mae: 1.6742
Epoch 74/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0946 - mae: 0.24
52 - val_loss: 2.7636 - val_mae: 1.6624
Epoch 75/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0911 - mae: 0.24
01 - val loss: 2.7244 - val mae: 1.6506
Epoch 76/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0878 - mae: 0.23
```

```
49 - val_loss: 2.6896 - val_mae: 1.6400
Epoch 77/250
97 - val_loss: 2.6627 - val_mae: 1.6318
Epoch 78/250
49 - val_loss: 2.6456 - val_mae: 1.6265
Epoch 79/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0792 - mae: 0.22
09 - val_loss: 2.6393 - val_mae: 1.6246
Epoch 80/250
78 - val_loss: 2.6434 - val_mae: 1.6258
Epoch 81/250
45 - val_loss: 2.6566 - val_mae: 1.6299
Epoch 82/250
12 - val_loss: 2.6770 - val_mae: 1.6362
Epoch 83/250
79 - val_loss: 2.7020 - val_mae: 1.6438
Epoch 84/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0666 - mae: 0.20
46 - val_loss: 2.7287 - val_mae: 1.6519
Epoch 85/250
16 - val_loss: 2.7546 - val_mae: 1.6597
Epoch 86/250
1/1 [============== ] - 0s 40ms/step - loss: 0.0619 - mae: 0.19
86 - val_loss: 2.7770 - val_mae: 1.6664
Epoch 87/250
55 - val_loss: 2.7941 - val_mae: 1.6715
Epoch 88/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0577 - mae: 0.19
24 - val_loss: 2.8046 - val_mae: 1.6747
Epoch 89/250
93 - val_loss: 2.8083 - val_mae: 1.6758
Epoch 90/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0540 - mae: 0.18
66 - val_loss: 2.8054 - val_mae: 1.6749
Epoch 91/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0523 - mae: 0.18
38 - val_loss: 2.7969 - val_mae: 1.6724
Epoch 92/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0506 - mae: 0.18
09 - val_loss: 2.7843 - val_mae: 1.6686
Epoch 93/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0490 - mae: 0.17
79 - val loss: 2.7693 - val mae: 1.6641
Epoch 94/250
1/1 [===========] - 0s 38ms/step - loss: 0.0474 - mae: 0.17
49 - val loss: 2.7535 - val mae: 1.6594
Epoch 95/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0458 - mae: 0.17
20 - val loss: 2.7384 - val mae: 1.6548
Epoch 96/250
90 - val loss: 2.7250 - val mae: 1.6508
Epoch 97/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0428 - mae: 0.16
62 - val_loss: 2.7141 - val_mae: 1.6474
Epoch 98/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0414 - mae: 0.16
34 - val loss: 2.7057 - val mae: 1.6449
Epoch 99/250
1/1 [=============== ] - 0s 29ms/step - loss: 0.0401 - mae: 0.16
```

```
08 - val_loss: 2.6998 - val_mae: 1.6431
Epoch 100/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0388 - mae: 0.15
83 - val_loss: 2.6958 - val_mae: 1.6419
Epoch 101/250
59 - val_loss: 2.6930 - val_mae: 1.6410
Epoch 102/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0365 - mae: 0.15
37 - val_loss: 2.6907 - val_mae: 1.6403
Epoch 103/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0355 - mae: 0.15
15 - val_loss: 2.6882 - val_mae: 1.6396
Epoch 104/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0344 - mae: 0.14
95 - val_loss: 2.6849 - val_mae: 1.6386
Epoch 105/250
1/1 [===========] - 0s 42ms/step - loss: 0.0334 - mae: 0.14
76 - val_loss: 2.6804 - val_mae: 1.6372
Epoch 106/250
57 - val_loss: 2.6746 - val_mae: 1.6354
Epoch 107/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0314 - mae: 0.14
38 - val_loss: 2.6676 - val_mae: 1.6333
Epoch 108/250
23 - val_loss: 2.6597 - val_mae: 1.6308
Epoch 109/250
10 - val_loss: 2.6512 - val_mae: 1.6283
Epoch 110/250
96 - val_loss: 2.6427 - val_mae: 1.6256
Epoch 111/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0281 - mae: 0.13
82 - val_loss: 2.6346 - val_mae: 1.6232
Epoch 112/250
67 - val_loss: 2.6273 - val_mae: 1.6209
Epoch 113/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0265 - mae: 0.13
51 - val_loss: 2.6210 - val_mae: 1.6189
Epoch 114/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0258 - mae: 0.13
34 - val_loss: 2.6158 - val_mae: 1.6173
Epoch 115/250
1/1 [============= ] - 0s 49ms/step - loss: 0.0251 - mae: 0.13
17 - val_loss: 2.6118 - val_mae: 1.6161
Epoch 116/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0244 - mae: 0.12
99 - val loss: 2.6090 - val mae: 1.6152
Epoch 117/250
1/1 [===========] - 0s 39ms/step - loss: 0.0238 - mae: 0.12
81 - val loss: 2.6072 - val mae: 1.6147
Epoch 118/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0231 - mae: 0.12
62 - val loss: 2.6063 - val mae: 1.6144
Epoch 119/250
45 - val loss: 2.6063 - val mae: 1.6144
Epoch 120/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0219 - mae: 0.12
28 - val_loss: 2.6071 - val_mae: 1.6147
Epoch 121/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0213 - mae: 0.12
11 - val loss: 2.6087 - val mae: 1.6152
Epoch 122/250
1/1 [=============== ] - 0s 33ms/step - loss: 0.0208 - mae: 0.11
```

```
96 - val_loss: 2.6111 - val_mae: 1.6159
Epoch 123/250
81 - val_loss: 2.6142 - val_mae: 1.6169
Epoch 124/250
68 - val_loss: 2.6181 - val_mae: 1.6181
Epoch 125/250
55 - val_loss: 2.6226 - val_mae: 1.6194
Epoch 126/250
1/1 [============ ] - 0s 43ms/step - loss: 0.0186 - mae: 0.11
42 - val_loss: 2.6276 - val_mae: 1.6210
Epoch 127/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0181 - mae: 0.11
30 - val_loss: 2.6328 - val_mae: 1.6226
Epoch 128/250
1/1 [============] - 0s 31ms/step - loss: 0.0177 - mae: 0.11
18 - val_loss: 2.6380 - val_mae: 1.6242
Epoch 129/250
05 - val_loss: 2.6428 - val_mae: 1.6257
Epoch 130/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0167 - mae: 0.10
92 - val_loss: 2.6469 - val_mae: 1.6269
Epoch 131/250
78 - val_loss: 2.6502 - val_mae: 1.6280
Epoch 132/250
64 - val_loss: 2.6526 - val_mae: 1.6287
Epoch 133/250
49 - val_loss: 2.6540 - val_mae: 1.6291
Epoch 134/250
1/1 [============== ] - 0s 41ms/step - loss: 0.0150 - mae: 0.10
34 - val_loss: 2.6547 - val_mae: 1.6293
Epoch 135/250
18 - val_loss: 2.6547 - val_mae: 1.6293
Epoch 136/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0143 - mae: 0.10
03 - val_loss: 2.6544 - val_mae: 1.6292
Epoch 137/250
1/1 [============== ] - 0s 50ms/step - loss: 0.0139 - mae: 0.09
88 - val_loss: 2.6542 - val_mae: 1.6292
Epoch 138/250
1/1 [============= ] - 0s 48ms/step - loss: 0.0135 - mae: 0.09
74 - val_loss: 2.6542 - val_mae: 1.6292
Epoch 139/250
1/1 [============= ] - 0s 47ms/step - loss: 0.0132 - mae: 0.09
60 - val loss: 2.6547 - val mae: 1.6293
Epoch 140/250
1/1 [============ ] - 0s 47ms/step - loss: 0.0128 - mae: 0.09
48 - val loss: 2.6558 - val mae: 1.6297
Epoch 141/250
35 - val loss: 2.6574 - val mae: 1.6302
Epoch 142/250
23 - val loss: 2.6595 - val mae: 1.6308
Epoch 143/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0119 - mae: 0.09
12 - val_loss: 2.6619 - val_mae: 1.6315
Epoch 144/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0116 - mae: 0.09
00 - val loss: 2.6643 - val mae: 1.6323
Epoch 145/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0113 - mae: 0.08
```

```
89 - val_loss: 2.6666 - val_mae: 1.6330
Epoch 146/250
1/1 [============= ] - 0s 41ms/step - loss: 0.0110 - mae: 0.08
77 - val_loss: 2.6684 - val_mae: 1.6335
Epoch 147/250
66 - val_loss: 2.6698 - val_mae: 1.6340
Epoch 148/250
1/1 [============= ] - 0s 45ms/step - loss: 0.0105 - mae: 0.08
55 - val_loss: 2.6706 - val_mae: 1.6342
Epoch 149/250
1/1 [=========== ] - 0s 46ms/step - loss: 0.0102 - mae: 0.08
44 - val_loss: 2.6710 - val_mae: 1.6343
Epoch 150/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0100 - mae: 0.08
33 - val_loss: 2.6709 - val_mae: 1.6343
Epoch 151/250
1/1 [=========== ] - 0s 33ms/step - loss: 0.0097 - mae: 0.08
21 - val_loss: 2.6706 - val_mae: 1.6342
Epoch 152/250
09 - val_loss: 2.6702 - val_mae: 1.6341
Epoch 153/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0093 - mae: 0.07
98 - val_loss: 2.6699 - val_mae: 1.6340
Epoch 154/250
86 - val_loss: 2.6697 - val_mae: 1.6339
Epoch 155/250
75 - val_loss: 2.6697 - val_mae: 1.6339
Epoch 156/250
65 - val_loss: 2.6698 - val_mae: 1.6340
Epoch 157/250
1/1 [============== ] - 0s 39ms/step - loss: 0.0085 - mae: 0.07
54 - val_loss: 2.6701 - val_mae: 1.6341
Epoch 158/250
45 - val_loss: 2.6705 - val_mae: 1.6342
Epoch 159/250
1/1 [============== ] - 0s 44ms/step - loss: 0.0081 - mae: 0.07
35 - val_loss: 2.6709 - val_mae: 1.6343
Epoch 160/250
1/1 [=============== ] - 0s 40ms/step - loss: 0.0080 - mae: 0.07
26 - val_loss: 2.6711 - val_mae: 1.6344
Epoch 161/250
1/1 [============= ] - 0s 40ms/step - loss: 0.0078 - mae: 0.07
17 - val_loss: 2.6712 - val_mae: 1.6344
Epoch 162/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0076 - mae: 0.07
08 - val loss: 2.6712 - val mae: 1.6344
Epoch 163/250
1/1 [===========] - 0s 29ms/step - loss: 0.0075 - mae: 0.06
99 - val loss: 2.6709 - val mae: 1.6343
Epoch 164/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0073 - mae: 0.06
90 - val loss: 2.6705 - val mae: 1.6342
Epoch 165/250
83 - val loss: 2.6700 - val mae: 1.6340
Epoch 166/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0071 - mae: 0.06
76 - val_loss: 2.6693 - val_mae: 1.6338
Epoch 167/250
1/1 [============== ] - 0s 38ms/step - loss: 0.0069 - mae: 0.06
69 - val loss: 2.6685 - val mae: 1.6336
Epoch 168/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0068 - mae: 0.06
```

```
62 - val_loss: 2.6676 - val_mae: 1.6333
Epoch 169/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0067 - mae: 0.06
56 - val_loss: 2.6666 - val_mae: 1.6330
Epoch 170/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0066 - mae: 0.06
49 - val_loss: 2.6655 - val_mae: 1.6326
Epoch 171/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0064 - mae: 0.06
43 - val_loss: 2.6642 - val_mae: 1.6322
Epoch 172/250
1/1 [============ ] - 0s 32ms/step - loss: 0.0063 - mae: 0.06
37 - val_loss: 2.6627 - val_mae: 1.6318
Epoch 173/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0062 - mae: 0.06
32 - val_loss: 2.6610 - val_mae: 1.6313
Epoch 174/250
1/1 [=========== ] - 0s 36ms/step - loss: 0.0061 - mae: 0.06
26 - val_loss: 2.6592 - val_mae: 1.6307
Epoch 175/250
20 - val_loss: 2.6573 - val_mae: 1.6301
Epoch 176/250
1/1 [============== ] - 0s 32ms/step - loss: 0.0059 - mae: 0.06
15 - val_loss: 2.6552 - val_mae: 1.6295
Epoch 177/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0058 - mae: 0.06
09 - val_loss: 2.6532 - val_mae: 1.6289
Epoch 178/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0057 - mae: 0.06
04 - val_loss: 2.6511 - val_mae: 1.6282
Epoch 179/250
98 - val_loss: 2.6490 - val_mae: 1.6276
Epoch 180/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0056 - mae: 0.05
93 - val_loss: 2.6469 - val_mae: 1.6269
Epoch 181/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0055 - mae: 0.05
88 - val_loss: 2.6448 - val_mae: 1.6263
Epoch 182/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0054 - mae: 0.05
83 - val_loss: 2.6428 - val_mae: 1.6257
Epoch 183/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0053 - mae: 0.05
77 - val_loss: 2.6406 - val_mae: 1.6250
Epoch 184/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0053 - mae: 0.05
72 - val_loss: 2.6384 - val_mae: 1.6243
Epoch 185/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0052 - mae: 0.05
67 - val loss: 2.6362 - val mae: 1.6236
Epoch 186/250
1/1 [=========== ] - 0s 30ms/step - loss: 0.0051 - mae: 0.05
62 - val loss: 2.6338 - val mae: 1.6229
Epoch 187/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0050 - mae: 0.05
58 - val loss: 2.6314 - val mae: 1.6221
Epoch 188/250
1/1 [=========== ] - 0s 32ms/step - loss: 0.0050 - mae: 0.05
53 - val loss: 2.6288 - val mae: 1.6214
Epoch 189/250
1/1 [============] - 0s 31ms/step - loss: 0.0049 - mae: 0.05
48 - val_loss: 2.6263 - val_mae: 1.6206
Epoch 190/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0048 - mae: 0.05
44 - val loss: 2.6237 - val mae: 1.6198
Epoch 191/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0048 - mae: 0.05
```

```
39 - val_loss: 2.6211 - val_mae: 1.6190
Epoch 192/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0047 - mae: 0.05
35 - val_loss: 2.6185 - val_mae: 1.6182
Epoch 193/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0047 - mae: 0.05
30 - val_loss: 2.6160 - val_mae: 1.6174
Epoch 194/250
1/1 [============== ] - 0s 29ms/step - loss: 0.0046 - mae: 0.05
26 - val_loss: 2.6134 - val_mae: 1.6166
Epoch 195/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0045 - mae: 0.05
22 - val_loss: 2.6108 - val_mae: 1.6158
Epoch 196/250
1/1 [============= ] - 0s 49ms/step - loss: 0.0045 - mae: 0.05
18 - val_loss: 2.6083 - val_mae: 1.6150
Epoch 197/250
1/1 [===========] - 0s 47ms/step - loss: 0.0044 - mae: 0.05
15 - val_loss: 2.6057 - val_mae: 1.6142
Epoch 198/250
11 - val_loss: 2.6031 - val_mae: 1.6134
Epoch 199/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0043 - mae: 0.05
07 - val_loss: 2.6005 - val_mae: 1.6126
Epoch 200/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0043 - mae: 0.05
04 - val_loss: 2.5979 - val_mae: 1.6118
Epoch 201/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0042 - mae: 0.05
00 - val_loss: 2.5954 - val_mae: 1.6110
Epoch 202/250
97 - val_loss: 2.5928 - val_mae: 1.6102
Epoch 203/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0041 - mae: 0.04
93 - val_loss: 2.5903 - val_mae: 1.6094
Epoch 204/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0041 - mae: 0.04
89 - val_loss: 2.5878 - val_mae: 1.6087
Epoch 205/250
1/1 [============== ] - 0s 31ms/step - loss: 0.0040 - mae: 0.04
86 - val_loss: 2.5853 - val_mae: 1.6079
Epoch 206/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0040 - mae: 0.04
83 - val_loss: 2.5828 - val_mae: 1.6071
Epoch 207/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0039 - mae: 0.04
79 - val_loss: 2.5803 - val_mae: 1.6063
Epoch 208/250
1/1 [============ ] - 0s 38ms/step - loss: 0.0039 - mae: 0.04
76 - val loss: 2.5778 - val mae: 1.6056
Epoch 209/250
1/1 [===========] - 0s 31ms/step - loss: 0.0038 - mae: 0.04
73 - val loss: 2.5753 - val mae: 1.6048
Epoch 210/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0038 - mae: 0.04
69 - val loss: 2.5728 - val mae: 1.6040
Epoch 211/250
66 - val loss: 2.5702 - val mae: 1.6032
Epoch 212/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0037 - mae: 0.04
63 - val_loss: 2.5677 - val_mae: 1.6024
Epoch 213/250
1/1 [============== ] - 0s 30ms/step - loss: 0.0037 - mae: 0.04
60 - val loss: 2.5652 - val mae: 1.6016
Epoch 214/250
1/1 [=============== ] - 0s 32ms/step - loss: 0.0036 - mae: 0.04
```

```
56 - val_loss: 2.5626 - val_mae: 1.6008
Epoch 215/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0036 - mae: 0.04
53 - val_loss: 2.5601 - val_mae: 1.6000
Epoch 216/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0035 - mae: 0.04
50 - val_loss: 2.5576 - val_mae: 1.5993
Epoch 217/250
1/1 [============= ] - 0s 32ms/step - loss: 0.0035 - mae: 0.04
47 - val_loss: 2.5552 - val_mae: 1.5985
Epoch 218/250
1/1 [============ ] - 0s 29ms/step - loss: 0.0034 - mae: 0.04
44 - val_loss: 2.5527 - val_mae: 1.5977
Epoch 219/250
1/1 [============= ] - 0s 31ms/step - loss: 0.0034 - mae: 0.04
41 - val_loss: 2.5503 - val_mae: 1.5970
Epoch 220/250
1/1 [============ ] - 0s 33ms/step - loss: 0.0034 - mae: 0.04
38 - val_loss: 2.5479 - val_mae: 1.5962
Epoch 221/250
35 - val_loss: 2.5455 - val_mae: 1.5955
Epoch 222/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0033 - mae: 0.04
32 - val_loss: 2.5431 - val_mae: 1.5947
Epoch 223/250
1/1 [============= ] - 0s 34ms/step - loss: 0.0032 - mae: 0.04
29 - val_loss: 2.5407 - val_mae: 1.5940
Epoch 224/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0032 - mae: 0.04
26 - val_loss: 2.5384 - val_mae: 1.5932
Epoch 225/250
23 - val_loss: 2.5360 - val_mae: 1.5925
Epoch 226/250
1/1 [============== ] - 0s 37ms/step - loss: 0.0031 - mae: 0.04
20 - val_loss: 2.5337 - val_mae: 1.5917
Epoch 227/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0031 - mae: 0.04
17 - val_loss: 2.5313 - val_mae: 1.5910
Epoch 228/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0031 - mae: 0.04
14 - val_loss: 2.5290 - val_mae: 1.5903
Epoch 229/250
1/1 [============== ] - 0s 34ms/step - loss: 0.0030 - mae: 0.04
12 - val_loss: 2.5267 - val_mae: 1.5896
Epoch 230/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0030 - mae: 0.04
09 - val_loss: 2.5244 - val_mae: 1.5888
Epoch 231/250
1/1 [============] - 0s 39ms/step - loss: 0.0030 - mae: 0.04
06 - val loss: 2.5221 - val mae: 1.5881
Epoch 232/250
1/1 [============ ] - 0s 36ms/step - loss: 0.0029 - mae: 0.04
03 - val loss: 2.5199 - val mae: 1.5874
Epoch 233/250
1/1 [============= ] - 0s 38ms/step - loss: 0.0029 - mae: 0.04
00 - val loss: 2.5176 - val mae: 1.5867
Epoch 234/250
98 - val loss: 2.5154 - val mae: 1.5860
Epoch 235/250
1/1 [============= ] - 0s 37ms/step - loss: 0.0028 - mae: 0.03
95 - val loss: 2.5132 - val mae: 1.5853
Epoch 236/250
1/1 [============== ] - 0s 43ms/step - loss: 0.0028 - mae: 0.03
92 - val loss: 2.5110 - val mae: 1.5846
Epoch 237/250
1/1 [============== ] - 0s 33ms/step - loss: 0.0027 - mae: 0.03
```

```
89 - val_loss: 2.5089 - val_mae: 1.5839
Epoch 238/250
1/1 [============= ] - 0s 28ms/step - loss: 0.0027 - mae: 0.03
87 - val_loss: 2.5067 - val_mae: 1.5833
Epoch 239/250
1/1 [============= ] - 0s 30ms/step - loss: 0.0027 - mae: 0.03
84 - val_loss: 2.5046 - val_mae: 1.5826
Epoch 240/250
1/1 [============ ] - 0s 31ms/step - loss: 0.0026 - mae: 0.03
81 - val_loss: 2.5025 - val_mae: 1.5819
Epoch 241/250
1/1 [============ ] - 0s 30ms/step - loss: 0.0026 - mae: 0.03
79 - val_loss: 2.5004 - val_mae: 1.5813
Epoch 242/250
1/1 [============= ] - 0s 33ms/step - loss: 0.0026 - mae: 0.03
76 - val_loss: 2.4984 - val_mae: 1.5806
Epoch 243/250
73 - val_loss: 2.4963 - val_mae: 1.5800
Epoch 244/250
1/1 [============= ] - 0s 35ms/step - loss: 0.0025 - mae: 0.03
71 - val_loss: 2.4942 - val_mae: 1.5793
Epoch 245/250
1/1 [============ ] - 0s 35ms/step - loss: 0.0025 - mae: 0.03
68 - val_loss: 2.4922 - val_mae: 1.5787
Epoch 246/250
66 - val_loss: 2.4902 - val_mae: 1.5780
Epoch 247/250
            ======== ] - 0s 41ms/step - loss: 0.0024 - mae: 0.03
1/1 [=======
63 - val_loss: 2.4881 - val_mae: 1.5774
Epoch 248/250
1/1 [============== ] - 0s 36ms/step - loss: 0.0024 - mae: 0.03
61 - val_loss: 2.4861 - val_mae: 1.5767
Epoch 249/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0024 - mae: 0.03
58 - val_loss: 2.4841 - val_mae: 1.5761
Epoch 250/250
1/1 [============== ] - 0s 35ms/step - loss: 0.0023 - mae: 0.03
56 - val_loss: 2.4821 - val_mae: 1.5755
AFter Cross Validation
mean of means is 0.47767551288487364 and standard deviation of means is: 0.351
```

In []:

31292779586476