

Table 1 contains the results of the Prophet model on all experimental datasets across 10 evaluation metrics: mean MASE, median MASE, mean sMAPE, median sMAPE, mean msMAPE, median msMAPE, mean MAE, median MAE, mean RMSE and median RMSE. For each dataset, the model is executed as a local model with its default parameters where one model is built per each series.

The forecast horizons of all datasets are the same as other benchmark models as explained in our paper.

Table 1: Prophet Results

Dataset	Mean MASE	Median MASE	Mean sMAPE	Median sMAPE	Mean msMAPE	Median msMAPE	Mean MAE	Median MAE	Mean RMSE	Median RMSE
M1 Yearly	5.633	4.567	22.77	21.03	22.75	21.03	167627.15	346.22	177710.58	364.86
M1 Quarterly	2.136	1.884	17.06	13.58	17.03	13.57	1656.51	28.69	1903.80	30.61
M1 Monthly	1.712	1.416	23.47	16.87	22.94	16.87	2431.18	57.27	2938.63	69.11
M3 Yearly	4.152	3.542	21.56	17.76	21.56	17.76	1281.34	1046.64	1400.83	1166.62
M3 Quarterly	1.672	1.445	12.56	8.75	12.56	8.75	653.44	473.37	724.78	525.33
M3 Monthly	1.375	1.059	22.63	13.70	22.63	13.70	928.43	682.56	1091.86	804.01
M3 Other	4.694	4.614	9.81	8.43	9.81	8.43	397.68	250.62	417.29	259.50
M4 Yearly	5.256	4.332	19.38	16.42	19.38	16.42	1233.35	785.25	1314.52	842.79
M4 Quarterly	1.758	1.458	14.40	8.53	14.40	8.53	773.47	415.91	860.25	470.48
M4 Monthly	1.367	1.073	20.22	10.46	20.22	10.46	732.09	366.26	857.20	425.51
M4 Weekly	1.049	0.749	19.38	10.24	19.38	10.24	680.54	341.07	754.74	432.19
M4 Daily	3.698	2.042	10.67	4.86	10.67	4.86	612.67	206.90	634.33	222.99
M4 Hourly	1.776	1.437	20.10	7.22	20.08	7.22	341.31	22.18	417.12	28.03
Tourism Yearly	2.590	2.289	20.37	16.05	20.34	16.05	86011.16	3080.50	91873.97	3489.18
Tourism Quarterly	2.153	1.784	20.15	16.44	20.15	16.44	13312.35	1405.48	14814.80	1600.78
Tourism Monthly	2.008	1.533	23.92	21.31	23.92	21.31	3442.83	583.10	3895.56	681.32
CIF 2016	1.029	0.851	20.22	8.25	20.21	8.25	1053054.23	87.35	1232225.35	106.46
Aus. Electricity Demand	1.414	1.230	11.09	11.77	11.09	11.77	325.47	423.69	409.25	527.07
Dominick	0.827	0.621	-	-	145.67	178.87	7.85	5.82	8.88	6.65
Bitcoin	11.089	6.313	43.25	30.99	43.15	30.99	3.86337x10 ¹⁸	40737.30	3.9013x10 ¹⁸	54423.99
Melbourne Pedestrian Counts	2.034	1.992	128.23	135.57	128.12	135.51	345.33	262.12	417.67	301.49
Vehicle Trips	2.428	1.580	41.59	39.29	41.30	39.28	32.61	7.73	38.79	9.13
KDD Cup	1.186	0.995	48.41	45.32	48.03	45.31	34.23	17.26	64.17	21.14
Weather	0.880	0.780	64.96	29.33	57.36	29.23	2.87	2.89	3.53	3.46
NN5 Daily	0.883	0.853	22.66	21.17	22.57	21.10	3.78	3.46	5.23	4.97
NN5 Weekly	0.927	0.805	12.62	11.28	12.62	11.28	15.76	13.28	19.60	16.86
Kaggle Web Traffic Daily	1.785	1.169	-	-	96.30	79.94	875.50	181.12	1130.82	230.04
Kaggle Web Traffic Weekly	1.196	0.794	-	-	87.39	69.01	4765.12	1013.75	5716.74	1184.42
Solar 10 Minutes	1.821	1.813	157.39	158.39	148.09	149.46	4.14	3.85	5.71	5.24
Solar Weekly	1.508	1.561	29.54	30.06	29.54	30.06	1471.27	1410.58	1639.32	1557.83
Electricity Hourly	2.050	1.967	27.30	17.52	27.22	17.52	462.72	98.39	630.57	139.36
Electricity Weekly	0.924	0.789	11.87	7.19	11.87	7.19	31098.93	6947.00	34750.78	8278.91
Carparts	0.876	0.619	-	-	65.45	60.61	0.56	0.42	0.81	0.71
FRED-MD	1.843	1.252	28.07	3.94	25.16	3.94	12651.79	5.00	12815.47	5.33
Traffic Hourly	1.316	1.192	63.86	52.62	6.71	5.90	0.02	0.02	0.03	0.02
Traffic Weekly	1.084	0.954	13.12	10.02	13.03	9.95	1.18	0.97	1.55	1.26
Rideshare	4.666	4.709	96.66	87.17	80.91	84.69	7.40	1.82	7.61	1.88
Hospital	0.673	0.654	16.09	14.51	16.05	14.49	17.07	5.92	20.64	7.18
Covid Deaths	12.770	3.331	-	-	18.24	7.27	648.97	4.47	650.01	4.57
Temperature Rain	1.150	0.885	-	-	122.69	133.36	7.06	4.01	9.03	5.69
Sunspot	0.852	0.852	199.30	199.30	198.69	198.69	32.87	32.87	32.92	32.92
Saugeen River Flow	1.510	1.510	39.25	39.25	39.21	39.21	22.77	22.77	42.99	42.99
US Births	5.626	5.626	15.30	15.30	15.30	15.30	1544.60	1544.60	1796.94	1796.94