### **UPGINI**

#### Data search report

Datetime: 2025-02-08 16:07 UTC Search ID: 4d32698e-4ea8-4b56-b5a8-90deef4b314b Initiator: demo\_user@upgini.com

This report was generated automatically by Upgini.

The report shows a listing of relevant features for your ML task and accuracy metrics after enrichment.

The following primary keys was used for data search: ['SearchKey.DATE']

All relevant features. Accuracy after enrichment

Dataset type	Rows	Mean target	Baseline mean_squared_error	Enriched mean_squared_error	Uplift
Train	15213	50.3977	305.220 ± 103.118	201.473 ± 62.127	103.7467
Eval 1	3787	59.2424	490.798 ± 71.251	336.804 ± 76.049	153.9939

#### Relevant data sources

Provider	Source	All features SHAP	Number of relevant features	
Training dataset, <u>Upgini</u>	AutoFE: features from Training dataset, <u>Calendar data</u>	5.8843	11	Request a quote
<u>Upgini</u>	<u>Calendar data</u>	5.0799	2	Request a quote
Training dataset, <u>Upgini</u>	AutoFE: features from Training dataset, Markets data	3.0873	19	Request a quote
<u>Upgini</u>	Markets data	1.3511	3	Request a quote

#### All relevant features. Listing (35 items)

Feature name	SHAP value	Coverage %	Value preview	Provider	Source	Updates
f_events_date_year_cos1_9 014a856	4.0020	100.0000	-0.7734, 0.783, 0.7841	Upgini	Calendar data	Daily
f_autofe_lag_7d_44ccb1e1	1.7691	99.4807	0.9787, -0.7988, 1.0	Training dataset	AutoFE: features from Training dataset, <u>Calendar data</u>	Daily
f_events_date_week_sin1_8 47b5db1	1.0779	100.0000	0.7818, -0.4339, -0.4339	Upgini	Calendar data	Daily
f_financial_date_gold_bf7 1e733	0.9815	100.0000	1252.4, 1141.3, 1069.4	Upgini	Markets data	Daily
f_autofe_lag_2d_1947d061	0.9420	99.8554	-0.2225, -0.901, -0.901	Training dataset	AutoFE: features from Training dataset, Calendar data	Daily
f_autofe_lag_3d_d168eb3e	0.7920	99.7831	0.0, 0.0, 0.7818	Training dataset	AutoFE: features from Training dataset, Calendar data	Daily
f_autofe_lag_3d_5dba02da	0.6874	99.7831	334.91, 342.74, 398.3	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_autofe_lag_7d_6354b8dc	0.6632	99.4807	381.06, 363.07, 393.43	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_autofe_roll_7d_norm_mea n_b8cbc4e4	0.4932	42.9370	-1.870671031129216e+16, 5.6806	Training dataset	AutoFE: features from Training dataset, Calendar data	Daily
f_autofe_lag_7d_24084e88	0.4916	99.4807	0.7818, -0.4339, -0.4339	Training dataset	AutoFE: features from Training dataset, Calendar data	Daily
f_autofe_lag_3d_7d332726	0.3985	99.7831	1210.5, 1214.2, 1279.4	Training dataset	AutoFE: features from Training dataset, Markets data	Daily
f_autofe_roll_7d_norm_mea n_f4c75f3e	0.3896	99.5530	0.7359, 1.0246, 0.9392	Training dataset	AutoFE: features from Training dataset, <u>Calendar data</u>	Daily
f_autofe_roll_3d_median_6 7a4ca4c	0.3213	99.8554	-0.901, 0.6235, -0.2225	Training dataset	AutoFE: features from Training dataset, <u>Calendar data</u>	Daily
f_autofe_roll_2d_min_bd3d 6759	0.2864	99.9343	-0.2225, -0.2225, 0.6235	Training dataset	AutoFE: features from Training dataset, <u>Calendar data</u>	Daily

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f_financial_date_natural_ gas_7d_to_7d_1y_shift_a5c 3c07f	0.2471	100.0000	1.3196, 1.5217, 1.2841	Upgini	Markets data	Daily
f_autofe_roll_3d_std_8d29 02a0	0.2382	99.8554	0.0017, 0.0057, 0.001	Training dataset	AutoFE: features from Training dataset, Markets data	Daily
f_autofe_lag_1d_5138dd83	0.1924	99.9343	0.7818, -0.7818, 0.9749	Training dataset	AutoFE: features from Training dataset, <u>Calendar data</u>	Daily
f_autofe_lag_7d_80f1c53c	0.1715	99.4807	1167.4, 1436.8, 1248.9	Training dataset	AutoFE: features from Training dataset, Markets data	Daily
f_autofe_lag_7d_298854c4	0.1671	99.4807	0.8878, 0.8789, 0.9489	Training dataset	AutoFE: features from Training dataset, Markets data	Daily
f_autofe_roll_2d_norm_mea n_fe42d9a4	0.1484	99.9343	0.9825, 1.0192, 0.9925	Training dataset	AutoFE: features from Training dataset, <u>Calendar data</u>	Daily
f_autofe_roll_7d_median_8 e1a5fee	0.1365	99.5530	0.7657, 0.8839, 1.2915	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_financial_date_crude_oi I_1f195998	0.1225	100.0000	51.06, 48.85, 50.85	Upgini	Markets data	Daily
f_autofe_roll_3d_std_e0a7 813d	0.1041	99.8554	0.0173, 0.2483, 0.2654	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_autofe_roll_2d_std_b88a e2e3	0.0928	99.9343	0.0396, 0.0453, 0.4681	Training dataset	AutoFE: features from Training dataset, Markets data	Daily
f_autofe_roll_2d_norm_mea n_f727ebb5	0.0876	82.9948	-0.087, 1.32, 1.625	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_autofe_roll_3d_std_cf25 c6ce	0.0632	99.8554	1.2953, 0.8949, 1.8651	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_autofe_roll_2d_std_6466 a8eb	0.0591	99.9343	0.1577, 0.1732, 0.0014	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_autofe_roll_3d_norm_mea n_d3a34f3f	0.0583	99.8554	1.0059, 1.0898, 1.2496	Training dataset	AutoFE: features from Training dataset, <u>Calendar data</u>	Daily
f_autofe_lag_1d_8255eb29	0.0578	99.9343	-0.05, -0.06, -0.47	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_autofe_roll_2d_norm_mea n_85d150da	0.0472	82.4887	1.6636, 1.6417, 1.2857	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_autofe_roll_2d_std_5994 058b	0.0439	99.9343	0.1131, 0.8415, 0.7354	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_autofe_roll_3d_std_43db 36b9	0.0363	99.8554	1.4868, 0.9662, 0.0346	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_autofe_lag_1d_1e473dd0	0.0131	99.9343	-0.74, -0.48, -2.39	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_autofe_roll_2d_min_aa77 19e1	0.0101	99.9343	-0.097, -0.415, -0.945	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
f_autofe_lag_3d_3c41924a	0.0097	99.7831	-0.405, 0.332, 0.461	Training dataset	AutoFE: features from Training dataset,Markets data	Daily
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### Description of AutoFE feature names

Sources	Feature name	Feature 1	Function
Training dataset, <u>Calendar data</u>	f_autofe_lag_7d_44ccb1e1	f_events_date_year_cos1_9 014a856	lag_7d
Training dataset, <u>Calendar data</u>	f_autofe_lag_2d_1947d061	f_events_date_week_cos1_f 6a8c1fc	lag_2d
Training dataset, <u>Calendar data</u>	f_autofe_lag_3d_d168eb3e	f_events_date_week_sin1_8 47b5db1	lag_3d
Training dataset, Markets data	f_autofe_lag_3d_5dba02da	f_financial_date_stoxx_04 3cbcd4	lag_3d
Training dataset, Markets data	f_autofe_lag_7d_6354b8dc	f_financial_date_stoxx_04 3cbcd4	lag_7d
Training dataset, <u>Calendar data</u>	f_autofe_roll_7d_norm_mea n_b8cbc4e4	f_events_date_week_cos2_b 0a07cfc	roll_7d_norm_mean

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Training dataset, <u>Calendar data</u>	f_autofe_lag_7d_24084e88	f_events_date_week_sin1_8 47b5db1	lag_7d
Training dataset, <u>Markets data</u>	f_autofe_lag_3d_7d332726	f_financial_date_gold_bf7 1e733	lag_3d
Training dataset, <u>Calendar data</u>	f_autofe_roll_7d_norm_mea n_f4c75f3e	f_events_date_year_cos1_9 014a856	roll_7d_norm_mean
Training dataset, <u>Calendar data</u>	f_autofe_roll_3d_median_6 7a4ca4c	f_events_date_week_cos3_7 525fe31	roll_3d_median
Training dataset, <u>Calendar data</u>	f_autofe_roll_2d_min_bd3d 6759	f_events_date_week_cos1_f 6a8c1fc	roll_2d_min
Training dataset, Markets data	f_autofe_roll_3d_std_8d29 02a0	f_financial_date_usd_eur_ 5d1b9c8f	roll_3d_std
Training dataset, <u>Calendar data</u>	f_autofe_lag_1d_5138dd83	f_events_date_week_sin2_e 28440a5	lag_1d
Training dataset, Markets data	f_autofe_lag_7d_80f1c53c	f_financial_date_gold_bf7 1e733	lag_7d
Training dataset, Markets data	f_autofe_lag_7d_298854c4	f_financial_date_natural_ gas_7d_to_1y_7a6f300d	lag_7d
Training dataset, <u>Calendar data</u>	f_autofe_roll_2d_norm_mea n_fe42d9a4	f_events_date_year_sin1_3 c44bc64	roll_2d_norm_mean
Training dataset, Markets data	f_autofe_roll_7d_median_8 e1a5fee	f_financial_date_vix_7d_t o_1y_634c77eb	roll_7d_median
Training dataset, Markets data	f_autofe_roll_3d_std_e0a7 813d	f_financial_date_usd_7419 609a	roll_3d_std
Training dataset, Markets data	f_autofe_roll_2d_std_b88a e2e3	f_financial_date_silver_g ap_f5b63f5b	roll_2d_std
Training dataset, Markets data	f_autofe_roll_2d_norm_mea n_f727ebb5	f_financial_date_usd_dayd iff_8bcdeec4	roll_2d_norm_mean
Training dataset, Markets data	f_autofe_roll_3d_std_cf25 c6ce	f_financial_date_stoxx_04 3cbcd4	roll_3d_std
Training dataset, Markets data	f_autofe_roll_2d_std_6466 a8eb	f_financial_date_natural_ gas_92dac942	roll_2d_std
Training dataset, <u>Calendar data</u>	f_autofe_roll_3d_norm_mea n_d3a34f3f	f_events_date_year_sin1_3 c44bc64	roll_3d_norm_mean
Training dataset, <u>Markets data</u>	f_autofe_lag_1d_8255eb29	f_financial_date_usd_gap_ 615a0ec0	lag_1d
Training dataset, Markets data	f_autofe_roll_2d_norm_mea n_85d150da	f_financial_date_gold_day diff_6c8f15fb	roll_2d_norm_mean
Training dataset, <u>Markets data</u>	f_autofe_roll_2d_std_5994 058b	f_financial_date_vix_gap_ b64bd2b9	roll_2d_std
Training dataset, <u>Markets data</u>	f_autofe_roll_3d_std_43db 36b9	f_financial_date_crude_oi l_1f195998	roll_3d_std
Training dataset, Markets data	f_autofe_lag_1d_1e473dd0	f_financial_date_usd_dayd iff_8bcdeec4	lag_1d
Training dataset, <u>Markets data</u>	f_autofe_roll_2d_min_aa77 19e1	f_financial_date_silver_d aydiff_25cf4951	roll_2d_min
Training dataset, <u>Markets data</u>	f_autofe_lag_3d_3c41924a	f_financial_date_silver_d aydiff_25cf4951	lag_3d

To buy found data sources, please contact: <a href="mailto:sales@upgini.com">sales@upgini.com</a>

Best regards, Upgini Team