Multi-Agent AutoML Report For OTICS

Generated On: 2024-04-11 21:43:06 (EDT)

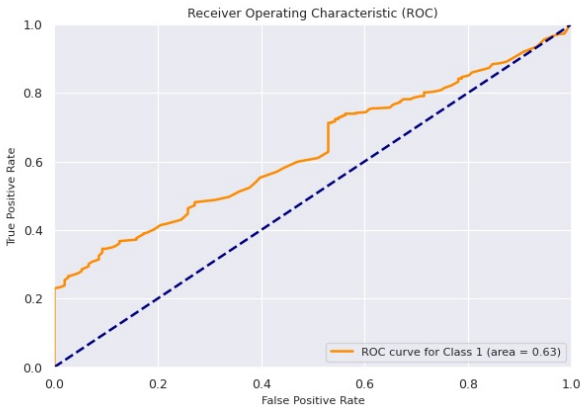
Best Model(s) Report For admin_aesopowerdemandlogistic_csv

MODEL DESCRIPTION

Model Trained On: 2024/04/11
Training Start Time: 2139
Training End Time: 2143
Was Data Normalized: Yes
Was Data Shuffled: Yes
Deep Analysis: No
Total Training Data Set: 961
Training Data Percentage: 75%
Total Test Data Set: 319
Total # of Variables: 4
Adjusted for Seasonality: N
Total Algorithms Run: 450
Removed Outliers: Y
ROC AUC: 0.631
Precision: 0.785 (0.311 For Class=0)
Recall: 0.650 (0.470 For Class=0)
F1-Score: 0.711 (0.375 For Class=0)
Best Distribution FOR ACTUAL Y: RECIPINVGAUSS
Dependent Variable: AESO_POWER_DEMAND_LABEL
Independent Variables: ['Calgary_Weather', 'Edmonton_Weather', 'FtMac_Weather']

Receiver Operating Characteristic Curve (ROC)

Using VotingClassifier algorithm for allseason



IMPORTANT FILE PATHS FOR RAW AND OUTPUT DATA

NOTE: These are DOCKER CONTAINER Paths. You can view these files inside the container by using the command: **docker exec -it {container id} bash If you have re-run the container, these files will be GONE but they exist on your HOST machine. The HOST MACHINE location is based on the volumes you mapped when you ran the Docker container. The Docker RUN Volume Mappings are :: (For example here is the docker run command (use multiple -v for multiple mappings):**

DOCKER RUN COMMAND: docker run -d -p 5595:5595 -p 5495:5495 -p 10000:10000 -v {HOST MACHINE FOLDER}:{CONTAINER FOLDER}:z --env TRAININGPORT=5595 --env PREDICTIONPORT=5495 --env ABORTPORT=10000 --env COMPANYNAME=MYCOMPANY --env MAXRUNTIME=20 --env MAINHOST=127.0.0.1 maadsdocker/maads-batch-automl-otics

Docker Volume Mappings:
1. {HOST MACHINE FOLDER}/csvuploads:/mnt/c/maads/agentfilesdocker/dist/maadsweb/csvuploads:z
2. {HOST MACHINE FOLDER}/pdfreports:/mnt/c/maads/agentfilesdocker/dist/maadsweb/pdfreports:z
3. {HOST MACHINE FOLDER}/autofeatures:/mnt/c/maads/agentfilesdocker/dist/maadsweb/autofeatures:z
4. {HOST MACHINE FOLDER}/outliers:/mnt/c/maads/agentfilesdocker/dist/maadsweb/outliers:z
5. {HOST MACHINE FOLDER}/sqlloads:/mnt/c/maads/agentfilesdocker/dist/maadsweb/sqlloads:z
6. {HOST MACHINE FOLDER}/networktemp:/mnt/c/maads/agentfilesdocker/dist/maadsweb/networktemp:z
7. {HOST MACHINE FOLDER}/networks:/mnt/c/maads/agentfilesdocker/networks:z
8. {HOST MACHINE FOLDER}/exception:/mnt/c/maads/agentfilesdocker/dist/maadsweb/exception:z
9. {HOST MACHINE FOLDER}/staging:/mnt/c/maads/agentfilesdocker/dist/staging:z
Path for Training Dataset File: /mnt/c/maads/agentfilesdocker/dist/maadsweb/csvuploads/aesopowerdemandlogistic.csv
Path for PDF Report (i.e. this file): /mnt/c/maads/agentfilesdocker/dist/maadsweb/pdfreports/admin_aesopowerdemandlogistic_csv_no_seasons.pdf
Path for AutoFeature File: /mnt/c/maads/agentfilesdocker/dist/maadsweb/autofeatures/admin_aesopowerdemandlogistic_csv_.csv
Path for Outliers File: /mnt/c/maads/agentfilesdocker/dist/maadsweb/outliers/admin_aesopowerdemandlogistic_csv.csv
Path for Algo JSON File: /mnt/c/maads/agentfilesdocker/dist/maadsweb/exception/admin_aesopowerdemandlogistic_csv_trained_algo_no_seasons.json
Folder Path for MySQL Scripts: /mnt/c/maads/agentfilesdocker/dist/maadsweb/sqlloads/
Path for Detailed Prediction File: /mnt/c/maads/agentfilesdocker/dist/maadsweb/csvuploads/admin_aesopowerdemandlogistic_csv_prediction_details.csv
Path for Algorithm Zip File (i.e pickle files): /mnt/c/maads/agentfilesdocker/dist/maadsweb/networktemp/admin_aesopowerdemandlogistic_csv.zip
Path for Algorithm Pickle Files:
1. /mnt/c/maads/agentfilesdocker/networks/otics_ADMIN_AESOPOWERDEMANDLOGISTIC_CSVALLSEASON_AG1_4_VotingClassifier_normal_961_ensemble_.pkl
2. /mnt/c/maads/agentfilesdocker/networks/otics_ADMIN_AESOPOWERDEMANDLOGISTIC_CSVALLSEASON_AG1_4_VotingClassifier_normal_961_ensemble_scalerx_.pkl

DESCRIPTIVE STATISTICS

Variables	T-Statistic	Count	Mean	STD	MIN	25%	50%	75%	MAX
Calgary_Weather	-3.505	961.0	5.862	-27.75	10.113	-0.4	6.85	14.0	23.85
Edmonton_Weather	-3.116	961.0	5.916	-26.64	11.759	-2.25	7.16	16.1	25.75
FtMac_Weather	3562660013702567.5	961.0	2.367	-32.4	13.694	-7.65	4.56	14.8	23.85
AESO_POWER_DEMAND_LABEL	NA	961.0	0.591	0.0	0.492	0.0	1.0	1.0	1.0

BEST ALGORITHM FOUND FOR THIS DATASET

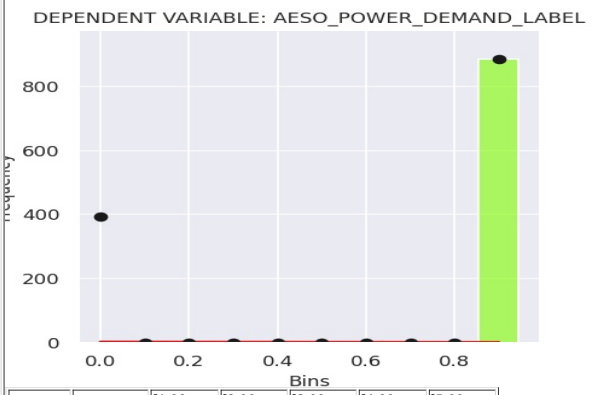
(Note: This trained model will be used to predict AESO_POWER_DEMAND_LABEL)

Algorithm	Description	Model Results	ROC/AUC	Precision	Recall	F1-Score	Forecast Months	Season
VotingClassifier	Voting Classifier: Combination of different classifers (DecisionTree, RandomForest,K nearest neighbour,GaussNB,Extra tree,ADA boost, etc) (Info)	VotingClassifier(estimators=[('dt', DecisionTreeClassifier(class_weight='balanced', max_features='log2', max_leaf_nodes=3, min_impurity_decrease=0.066469436236248269, min_samples_leaf=8, min_samples_split=5, min_weight_fraction_leaf=0.3194174662332445, random_state=45)), ('knn', KNeighborsClassifier(algorithm='brute', leaf_size=5, n_neighbors=1, p=6)), ('lr', Logi... AdaBoostClassifier(learning_rate=2.0370480811234395, n_estimators=34, random_state=40)), ('et', ExtraTreesClassifier(class_weight='balanced_subsample', criterion='entropy', max_depth=9, min_impurity_decrease=1.0955448805815036, min_samples_leaf=4, min_samples_split=3, min_weight_fraction_leaf=0.49069151202783584, n_estimators=43, random_state=143))], voting='soft')	0.500	0.785: Class=1 (0.311: Class=0)	0.650: Class=1 (0.470: Class=0)	0.711: Class=1 (0.375: Class=0)	1 - 12	allseason

TOP 10 ALGORITHMS FOR ALLSEASON					
Num	Algorithm	ROC/AUC	Details	Season	Description
1	VotingClassifier	0.5000	**Recall:** 0.65 (class 1) **Precision:** 0.785 (class 1) **F1 Score:** 0.711 (class 1) **Recall:** 0.47 (class 0) **Precision:** 0.311 (class 0) **F1 Score:** 0.375 (class 0) **False Positive Rate:** 13.3% **True Negaive Rate:** 13.3% **False Negative Rate:** 26.2% **True Positive Rate:** 48.7%	allseason	VOTING CLASSIFIER: Combination of different classifers (DecisionTree, RandomForest,K nearest neighbour,GaussNB,Extra tree,ADA boost, etc) URL=http://scikit-learn.org/stable/modules/generated/sklearn.ensemble.VotingClassifier.html
2	LogisticRegression	0.4810	**Recall:** 0.452 (class 1) **Precision:** 0.94 (class 1) **F1 Score:** 0.611 (class 1) **Recall:** 0.914 (class 0) **Precision:** 0.359 (class 0) **F1 Score:** 0.516 (class 0) **False Positive Rate:** 2.2% **True Negaive Rate:** 2.2% **True Positive Rate:** 33.8% **False Negative Rate:** 41.0%	allseason	LOGISTIC REGRESSION: URL=http://scikit-learn.org/stable/modules/generated/sklearn.linear_model.LogisticRegression.html#sklearn.linear_model.LogisticRegression.predict
3	VotingClassifier_knclassifier	0.4360	**Recall:** 0.659 (class 1) **Precision:** 0.789 (class 1) **F1 Score:** 0.718 (class 1) **Recall:** 0.477 (class 0) **Precision:** 0.32 (class 0) **F1 Score:** 0.383 (class 0) **False Positive Rate:** 13.2% **True Negaive Rate:** 13.2% **False Negative Rate:** 25.5% **True Positive Rate:** 49.3%	allseason	K-NEAREST NEIGHBOUR: k-nearest neighbour URL=http://scikit-learn.org/stable/modules/neighbors.html#nearest-neighbors-classification

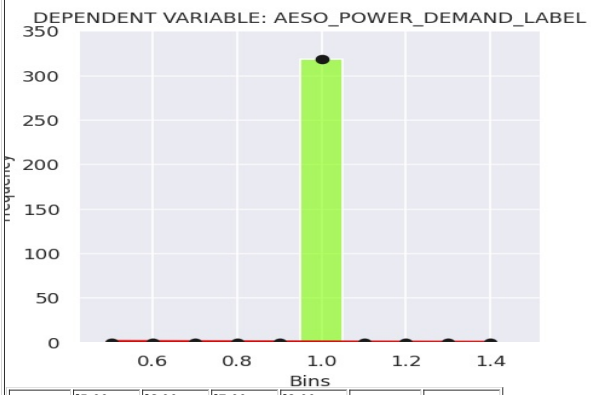
Detailed Histograms of Training and Test Data Sets

TRAINING VARIABLES

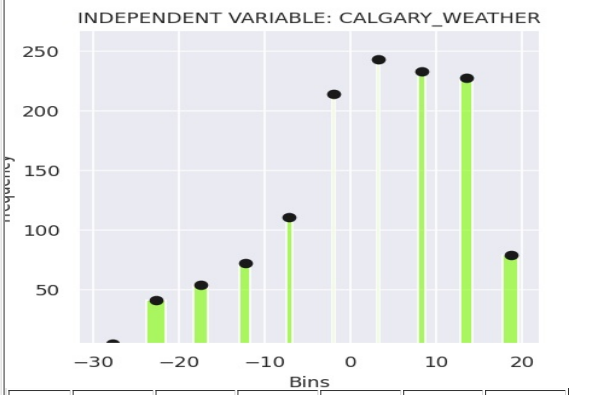


Bins	[0.00e+00, 1.00e-01]	[1.00e-01, 2.00e-01]	[2.00e-01, 3.00e-01]	[3.00e-01, 4.00e-01]	[4.00e-01, 5.00e-01]	[5.00e-01, 6.00e-01]
Count	393	0	0	0	0	0
Share	31.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Rows	1280	1280	1280	1280	1280	1280
Min	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Max	1.00e+00	1.00e+00	1.00e+00	1.00e+00	1.00e+00	1.00e+00
Number of Bins	6	6	6	6	6	6

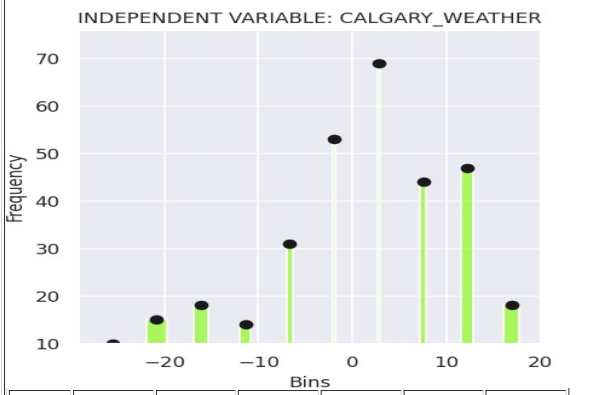
TEST VARIABLES



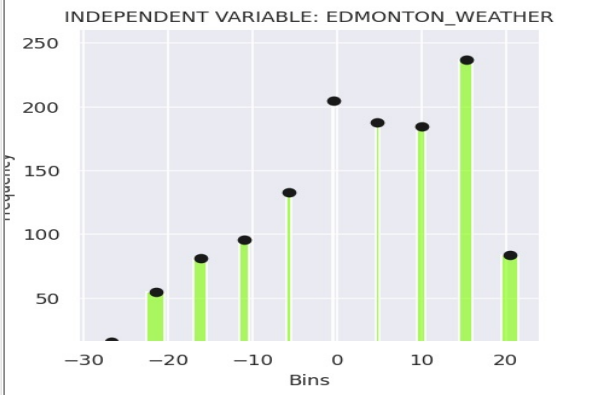
Bins	[5.00e-01, 6.00e-01]	[6.00e-01, 7.00e-01]	[7.00e-01, 8.00e-01]	[8.00e-01, 9.00e-01]	[9.00e-01, 1.00e+00]	[1.00e+00, 1.10e+00]
Count	0	0	0	0	0	319
Share	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Total Rows	319	319	319	319	319	319
Min	1.00e+00	1.00e+00	1.00e+00	1.00e+00	1.00e+00	1.00e+00
Max	1.00e+00	1.00e+00	1.00e+00	1.00e+00	1.00e+00	1.00e+00
Number of Bins	6	6	6	6	6	6

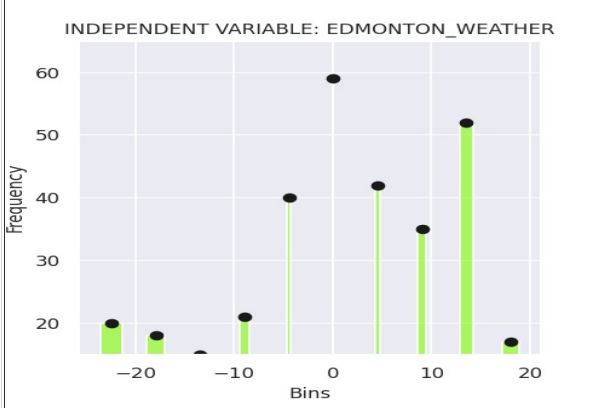


Bins	[-2.78e+01, -2.26e+01]	[-2.26e+01, -1.74e+01]	[-1.74e+01, -1.23e+01]	[-1.23e+01, -7.11e+00]	[-7.11e+00, -1.95e+00]	[-1.95e+00, 3.21e+00]
Count	5	41	54	72	111	214
Share	0.0%	3.0%	4.0%	6.0%	9.0%	17.0%
Total Rows	1280	1280	1280	1280	1280	1280
Min	-2.70e+01	-2.70e+01	-2.70e+01	-2.70e+01	-2.70e+01	-2.70e+01
Max	2.30e+01	2.30e+01	2.30e+01	2.30e+01	2.30e+01	2.30e+01
Number of Bins	6	6	6	6	6	6



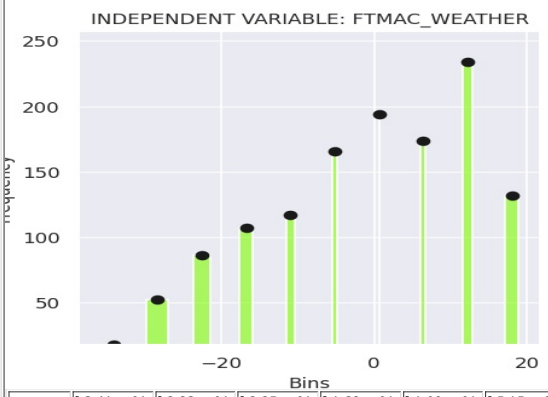
Bins	[-2.55e+01, -2.08e+01]	[-2.08e+01, -1.61e+01]	[-1.61e+01, -1.14e+01]	[-1.14e+01, -6.64e+00]	[-6.64e+00, -1.93e+00]	[-1.93e+00, 2.79e+00]
Count	10	15	18	14	31	53
Share	3.0%	5.0%	6.0%	4.0%	10.0%	17.0%
Total Rows	319	319	319	319	319	319
Min	-2.50e+01	-2.50e+01	-2.50e+01	-2.50e+01	-2.50e+01	-2.50e+01
Max	2.10e+01	2.10e+01	2.10e+01	2.10e+01	2.10e+01	2.10e+01
Number of Bins	6	6	6	6	6	6



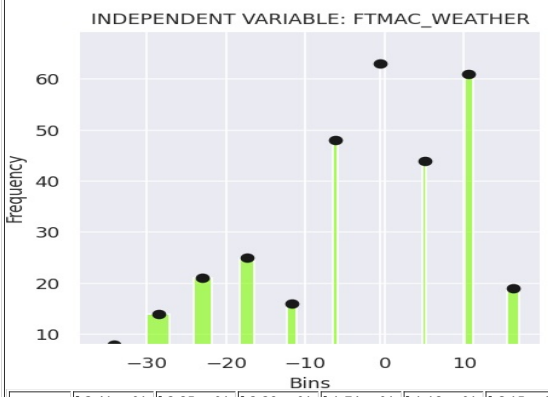


Bins	[-2.66e+01, -2.14e+01]	[-2.14e+01, -1.62e+01]	[-1.62e+01, -1.09e+01]	[-1.09e+01, -5.68e+00]	[-5.68e+00, -4.45e-01]	[-4.45e-01, 4.79e+00]
Count	16	55	81	96	133	205
Share	1.0%	4.0%	6.0%	8.0%	10.0%	16.0%
Total Rows	1280	1280	1280	1280	1280	1280
Min	-2.60e+01	-2.60e+01	-2.60e+01	-2.60e+01	-2.60e+01	-2.60e+01
Max	2.50e+01	2.50e+01	2.50e+01	2.50e+01	2.50e+01	2.50e+01
Number of Bins	6	6	6	6	6	6

Bins	[-2.24e+01, -1.79e+01]	[-1.79e+01, -1.34e+01]	[-1.34e+01, -8.91e+00]	[-8.91e+00, -4.42e+00]	[-4.42e+00, 7.50e-02]	[7.50e-02, 4.57e+00]
Count	20	18	15	21	40	59
Share	6.0%	6.0%	5.0%	7.0%	13.0%	18.0%
Total Rows	319	319	319	319	319	319
Min	-2.20e+01	-2.20e+01	-2.20e+01	-2.20e+01	-2.20e+01	-2.20e+01
Max	2.20e+01	2.20e+01	2.20e+01	2.20e+01	2.20e+01	2.20e+01
Number of Bins	6	6	6	6	6	6

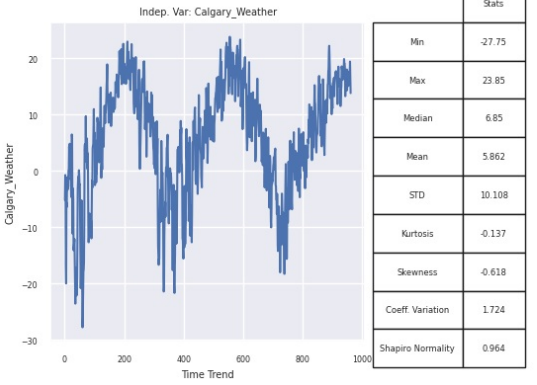


Bins	[-3.41e+01, -2.83e+01]	[-2.83e+01, -2.25e+01]	[-2.25e+01, -1.68e+01]	[-1.68e+01, -1.09e+01]	[-1.09e+01, -5.15e+00]	[-5.15e+00, 6.50e-01]
Count	18	52	86	107	117	166
Share	1.0%	4.0%	7.0%	8.0%	9.0%	13.0%
Total Rows	1280	1280	1280	1280	1280	1280
Min	-3.40e+01	-3.40e+01	-3.40e+01	-3.40e+01	-3.40e+01	-3.40e+01
Max	2.30e+01	2.30e+01	2.30e+01	2.30e+01	2.30e+01	2.30e+01
Number of Bins	6	6	6	6	6	6

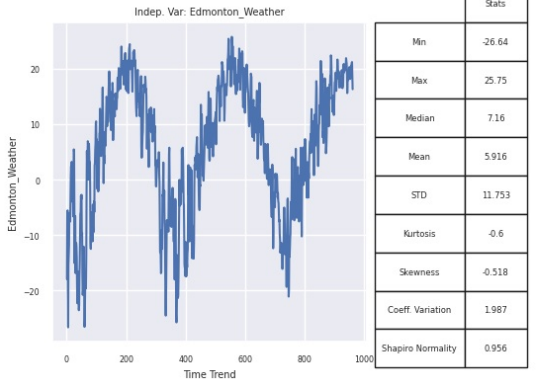


Bins	[-3.41e+01, -2.85e+01]	[-2.85e+01, -2.29e+01]	[-2.29e+01, -1.74e+01]	[-1.74e+01, -1.18e+01]	[-1.18e+01, -6.15e+00]	[-6.15e+00, -5.50e-01]
Count	8	14	21	25	16	48
Share	3.0%	4.0%	7.0%	8.0%	5.0%	15.0%
Total Rows	319	319	319	319	319	319
Min	-3.40e+01	-3.40e+01	-3.40e+01	-3.40e+01	-3.40e+01	-3.40e+01
Max	2.10e+01	2.10e+01	2.10e+01	2.10e+01	2.10e+01	2.10e+01
Number of Bins	6	6	6	6	6	6

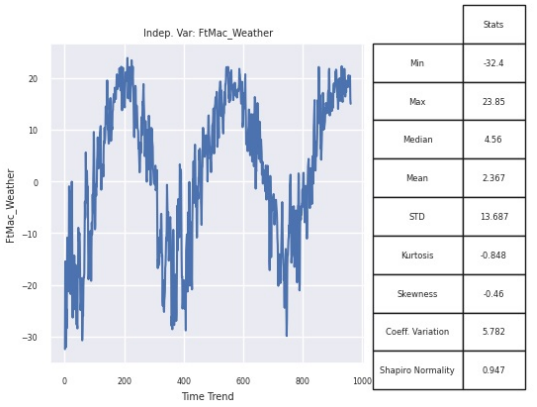
Detailed Graphs of Variables Against Time



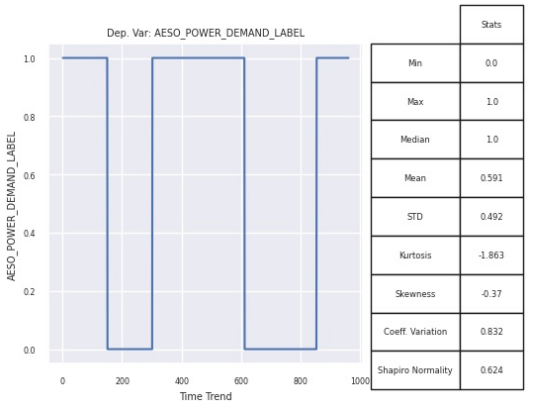
	Stats
Min	-27.75
Max	23.85
Median	6.85
Mean	5.862
STD	10.108
Kurtosis	-0.137
Skewness	-0.618
Coeff. Variation	1.724
Shapiro Normality	0.964



	Stats
Min	-26.64
Max	25.75
Median	7.16
Mean	5.916
STD	11.753
Kurtosis	-0.6
Skewness	-0.518
Coeff. Variation	1.987
Shapiro Normality	0.956

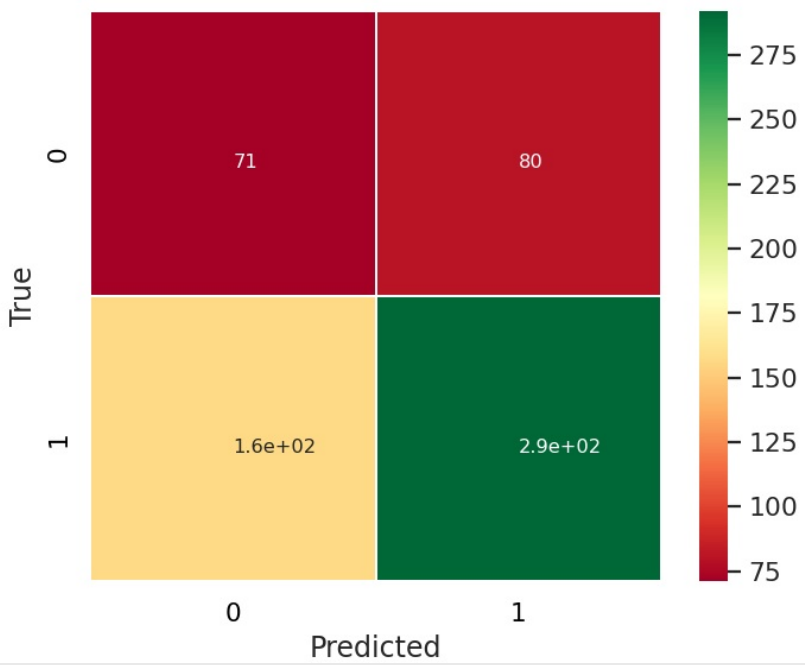


	Stats
Min	-32.4
Max	23.85
Median	4.56
Mean	2.367
STD	13.687
Kurtosis	-0.848
Skewness	-0.46
Coeff. Variation	5.782
Shapiro Normality	0.947



	Stats
Min	0.0
Max	1.0
Median	1.0
Mean	0.591
STD	0.492
Kurtosis	-1.863
Skewness	-0.37
Coeff. Variation	0.832
Shapiro Normality	0.624

Confusion Matrix



The confusion matrix shows the True Negatives (top left)/True Positives (bottom right) on the diagonals, and False Negatives (top right) and False Positives (bottom left).
True Positives: 80
False Positives: 71
True Negatives: 157
False Negatives: 157
Total Population: 600
The False Positve Rate(FPR) is: 13.33%
The False Negative Rate is: 26.17%
The True Positive Rate is: 48.67%
The True Negative Rate is: 11.83%
The Positive Likelihood Ratio (True Positive Rate/False Positive Rate)is: 3.65
The Negative Likelihood Ratio (False Negative Rate/True Negative Rate) is: 2.21
Accuracy: 0.5
Precision: 0.785
Recall: 0.65
F1 Score: 0.711

Precision Curve: [0.748, 0.749, 0.747, 0.746, 0.748, 0.750, 0.749, 0.751, 0.751, 0.752, 0.754, 0.756, 0.755, 0.760, 0.759, 0.762, 0.761, 0.762, 0.761, 0.760, 0.761, 0.762, 0.763, 0.765, 0.768, 0.769, 0.768, 0.768, 0.767, 0.768, 0.770, 0.771, 0.771, 0.775, 0.775, 0.775, 0.777, 0.776, 0.783, 0.785, 0.786, 0.786, 0.791, 0.790, 0.792, 0.796, 0.795, 0.797, 0.796, 0.798, 0.797, 0.799, 0.798, 0.798, 0.797, 0.799, 0.798, 0.800, 0.799, 0.798, 0.797, 0.796, 0.796, 0.794, 0.794, 0.793, 0.793, 0.791, 0.790, 0.789, 0.789, 0.788, 0.787, 0.787, 0.786, 0.786, 0.785, 0.784, 0.782, 0.779, 0.781, 0.791, 0.796, 0.798, 0.805, 0.805, 0.805, 0.810, 0.814, 0.823, 0.829, 0.840, 0.838, 0.842, 0.838, 0.838, 0.839, 0.851, 0.857, 0.861, 0.864, 0.867, 0.871, 0.870, 0.876, 0.874, 0.897, 0.896, 0.895, 0.898, 0.902, 0.912, 0.917, 0.917, 0.915, 0.918, 0.917, 0.916, 0.926, 0.931, 0.930, 0.941, 0.940, 0.946, 0.960, 0.967, 0.967, 0.967, 0.974, 0.974, 0.973, 0.973, 0.981, 1.000]

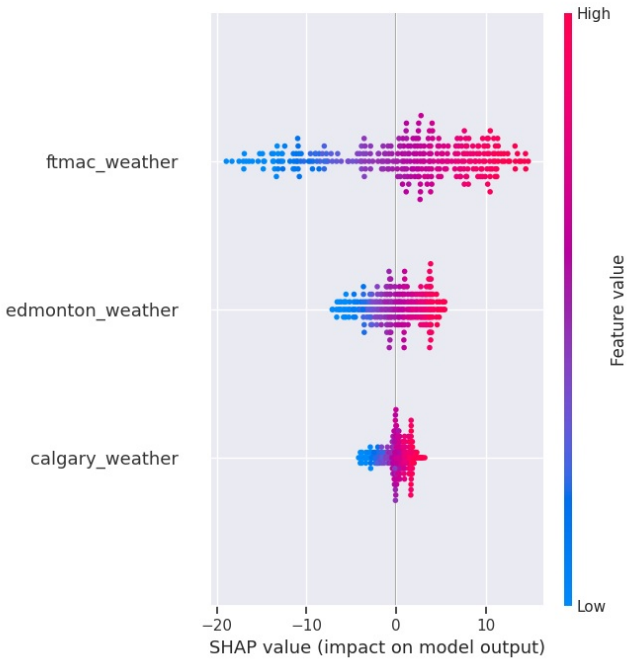
Recall Curve: [1.000, 0.998, 0.989, 0.973, 0.971, 0.955, 0.935, 0.920, 0.902, 0.891, 0.886, 0.884, 0.873, 0.860, 0.851, 0.846, 0.842, 0.842, 0.835, 0.833, 0.822, 0.815, 0.808, 0.804, 0.802, 0.802, 0.797, 0.795, 0.791, 0.791, 0.788, 0.786, 0.782, 0.782, 0.775, 0.773, 0.766, 0.757, 0.755, 0.755, 0.753, 0.744, 0.742, 0.739, 0.739, 0.739, 0.735, 0.733, 0.731, 0.728, 0.724, 0.724, 0.722, 0.719, 0.717, 0.715, 0.713, 0.713, 0.710, 0.706, 0.702, 0.697, 0.695, 0.688, 0.686, 0.684, 0.682, 0.673, 0.670, 0.668, 0.666, 0.664, 0.659, 0.657, 0.655, 0.653, 0.650, 0.648, 0.639, 0.628, 0.610, 0.599, 0.581, 0.570, 0.552, 0.541, 0.523, 0.512, 0.497, 0.488, 0.486, 0.481, 0.472, 0.463, 0.448, 0.439, 0.430, 0.419, 0.414, 0.401, 0.396, 0.392, 0.390, 0.388, 0.376, 0.372, 0.367, 0.363, 0.361, 0.354, 0.350, 0.345, 0.345, 0.343, 0.334, 0.325, 0.321, 0.314, 0.307, 0.301, 0.294, 0.285, 0.281, 0.274, 0.267, 0.265, 0.263, 0.261, 0.254, 0.247, 0.241, 0.238, 0.234, 0.229, 0.227, 0.220, 0.214, 0.205, 0.192, 0.189, 0.185, 0.183, 0.180, 0.176, 0.171, 0.165, 0.163, 0.158, 0.154, 0.145, 0.136, 0.122, 0.111, 0.102, 0.087, 0.071, 0.047, 0.045, 0.029, 0.024, 0.018, 0.013, 0.009, 0.007, 0.002, 0.000]

Thresholds: [0.408, 0.409, 0.410, 0.411, 0.412, 0.413, 0.414, 0.415, 0.416, 0.417, 0.418, 0.419, 0.420, 0.421, 0.422, 0.423, 0.424, 0.425, 0.426, 0.427, 0.428, 0.429, 0.430, 0.431, 0.432, 0.433, 0.434, 0.435, 0.436, 0.437, 0.438, 0.439, 0.440, 0.441, 0.442, 0.443, 0.444, 0.445, 0.446, 0.447, 0.448, 0.449, 0.450, 0.451, 0.452, 0.453, 0.454, 0.455, 0.456, 0.459, 0.460, 0.461, 0.463, 0.465, 0.466, 0.467, 0.470, 0.472, 0.474, 0.475, 0.476, 0.477, 0.480, 0.481, 0.482, 0.484, 0.485, 0.486, 0.487, 0.488, 0.489, 0.495, 0.496, 0.497, 0.498, 0.499, 0.503, 0.551, 0.552, 0.553, 0.554, 0.555, 0.556, 0.557, 0.558, 0.559, 0.560, 0.561, 0.562, 0.563, 0.564, 0.565, 0.566, 0.567, 0.568, 0.569, 0.570, 0.571, 0.572, 0.573, 0.574, 0.575, 0.576, 0.577, 0.578, 0.579, 0.580, 0.581, 0.582, 0.583, 0.584, 0.586, 0.587, 0.588, 0.589, 0.590, 0.591, 0.592, 0.593, 0.594, 0.595, 0.596, 0.597, 0.598, 0.599, 0.600, 0.601, 0.602, 0.603, 0.604, 0.605, 0.606, 0.607, 0.608, 0.609, 0.611, 0.612, 0.613, 0.614, 0.615, 0.616, 0.617, 0.619, 0.622, 0.623, 0.626, 0.629, 0.632, 0.633, 0.634, 0.636, 0.637, 0.638, 0.639, 0.640, 0.641, 0.642, 0.643, 0.644, 0.645, 0.646, 0.647, 0.652, 0.655, 0.658]

OUTLIERS REMOVED FROM TRAINING DATA: admin_aesopowerdemandlogistic_csv

Date	X	Y
No outliers found. Outlier algorithm needs a continuous dependent variable		

MODEL EXPLANATION



- The x-axis represents the model's output values of **AESO_POWER_DEMAND_LABEL**
- The plot is centered on the x-axis at explainer.expected_value.
- All values are relative to the model's expected value like a linear model's effects are relative to the intercept.
- The y-axis lists the model's features. By default, the features are ordered by descending importance.
- The importance is calculated over the observations plotted. _This is usually different than the importance ordering for the entire dataset.
- In addition to feature importance ordering, the decision plot also supports hierarchical cluster feature ordering and user-defined feature ordering.
- Each observation's prediction is represented by a colored line.
- At the top of the plot, each line strikes the x-axis at its corresponding observation's predicted value. This value determines the color of the line on a spectrum.
- Moving from the bottom of the plot to the top, SHAP values for each feature are added to the model's base value.
- This shows how each feature contributes to the overall prediction.
- At the bottom of the plot, the observations converge at explainer.expected_value.
- The points in the graph are the values of the feature in the training dataset.

FEATURE SELECTION

RFE Variable (Most important to Least Important)	**Value**
AESO_POWER_DEMAND_LABEL	0.984
FtMac_Weather	0.008
Edmonton_Weather	0.005
Calgary_Weather	0.003
Best Variable(s) From Genetic Algorithm	
AESO_POWER_DEMAND_LABEL	
FtMac_Weather	
Calgary_Weather	
Excluded Variable(s)	
Edmonton_Weather	
PCA for Best Variable(s)	Value
AESO_POWER_DEMAND_LABEL_pca_1	0.139
AESO_POWER_DEMAND_LABEL_pca_2	-0.990
AESO_POWER_DEMAND_LABEL_pca_3	0.011
Calgary_Weather_pca_1	-0.701
Calgary_Weather_pca_2	-0.090
Calgary_Weather_pca_3	0.708
FtMac_Weather_pca_1	-0.700
FtMac_Weather_pca_2	-0.106
FtMac_Weather_pca_3	-0.706
PCA Explained Variance	Value
PCA1	0.649
PCA2	0.327
PCA3	0.024

- Feature selection shows which variables were more influential than other variables
- It uses two core algorithms: Recursive Feature Elimination (RFE) and Genetic Algorithm to determine influence
- It also performs PCA (principal component analysis) analysis to determine the influence of the best variables in the model
- These results should be used in conjunction with other information as well as theory to establish relevance and confidence in the chosen model formulation

CORRELATION MATRIX

CORRELATED FEATURES

	Feature(s)	Feature(s)	Correlation >= 0.100
0	Calgary_Weather	FtMac_Weather	0.929
1	Edmonton_Weather	FtMac_Weather	0.964
2	Calgary_Weather	Edmonton_Weather	0.970
3	Calgary_Weather	Calgary_Weather	NaN

SUGGESTED CORRELATED FEATURES TO DELETE

	2 Feature(s) to Delete	Correlation
0	Calgary_Weather	0.929
1	Edmonton_Weather	0.964

END OF REPORT