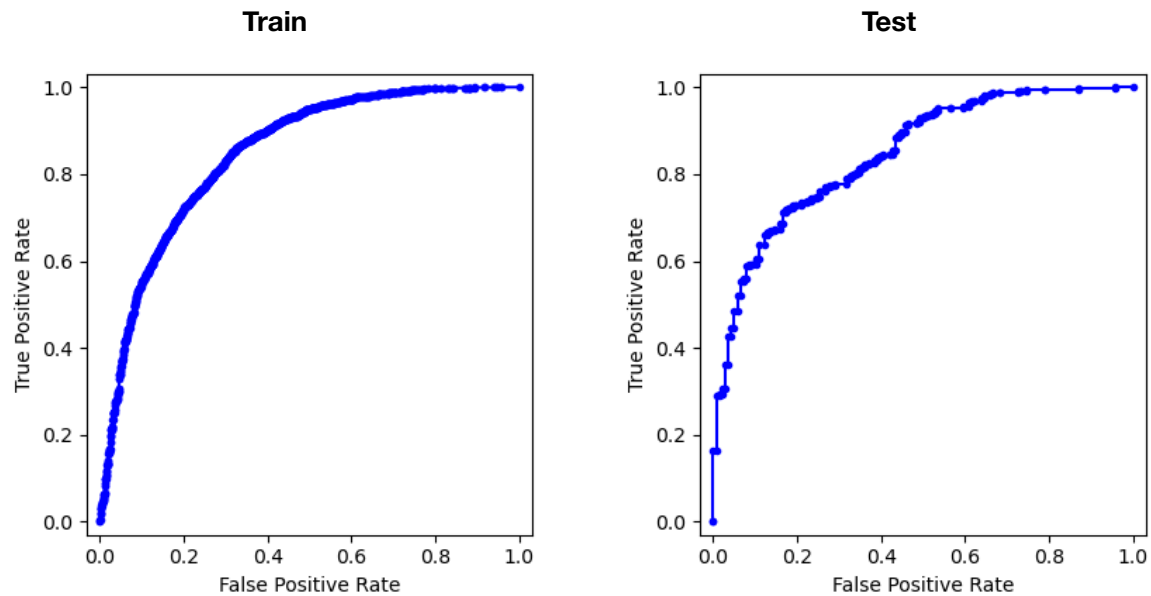## Hyperparameters of best model
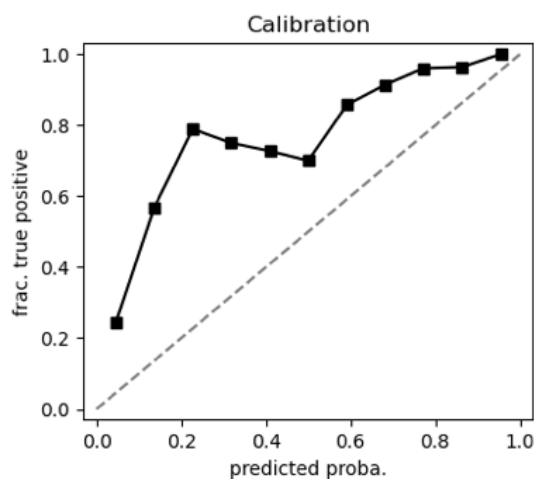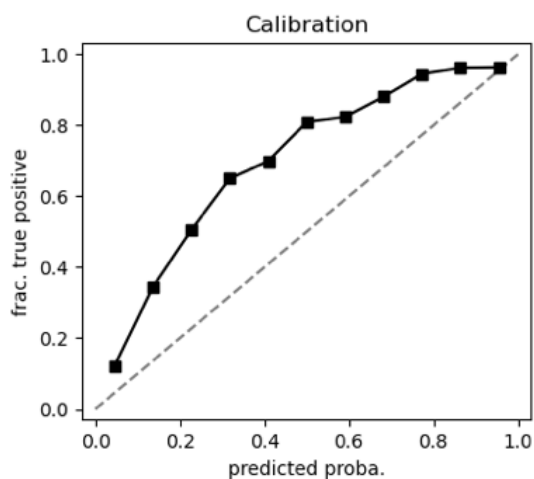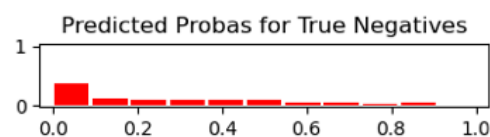
```
ThresholdClassifier(cache={}, classes=array([0, 1]),
                    clf=LogisticRegression(class_weight='balanced',
                                           random_state=8675309),
                    threshold=0.46609448978331014)
```

Input Data Summary

	n_examples	n_labels_positive	frac_labels_positive
split_name			
train	6829	5356	0.7843
test	750	612	0.8160

Performance Plots
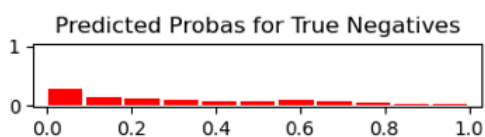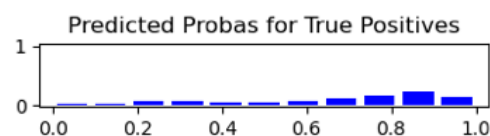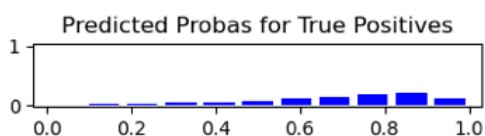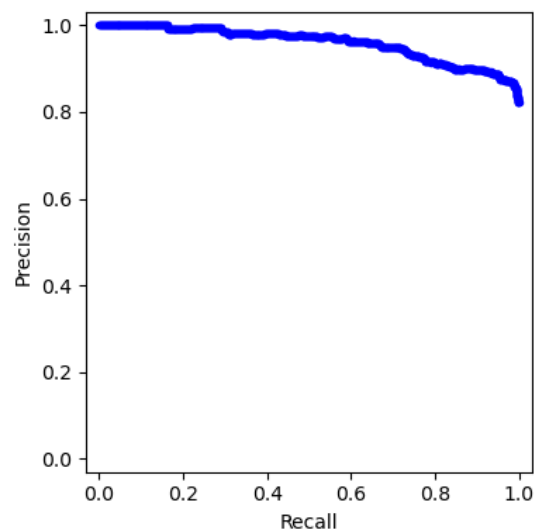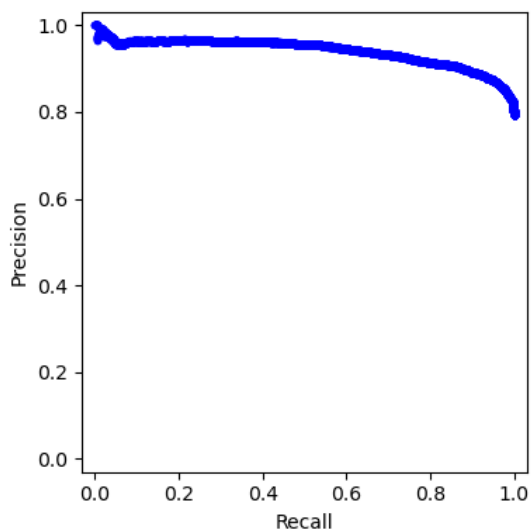
Predicted label	0	1
True label		
0	1022	451
1	872	4484

Predicted label	0	1
True label		
0	105	33
1	156	456

Performance Metrics using Probabilities

	AUROC	AUPRC	average_precision	cross_entropy_base2
split_name				

train	0.8468	0.9402	0.9403	0.6806
test	0.8474	0.9589	0.9590	0.7949

Performance Metrics using Thresholded Decisions

	balanced_accuracy	accuracy	f1_score	TPR	TNR	PPV	NPV
split_name							
train	0.7655	0.8063	0.8714	0.8372	0.6938	0.9086	0.5396
test	0.7530	0.7480	0.8283	0.7451	0.7609	0.9325	0.4023

Settings: Hyperparameters to Tune

```
grid_C: [1e-07, 1e-05, 0.001, 0.01, 0.1, 1.0, 10.0, 100.0, 1000.0]
```

Settings: Protocol

```
key_cols_to_group_when_splitting: ['subject_id']
n_splits: 3
outcome_col_name: horizontal_motion_binary_label
random_seed: 8675309
scoring: roc_auc
splitter_type: naive_split
threshold_scoring: balanced_accuracy
validation_size: 0.1
```

Settings: Data

```
data_dict_files: /Users/hezekiah/Documents/GitHub/time_series_prediction/datasets/unimi
b_shar_activities/v20200515/split-by=subject_id/collapsed_features_per_sequence/x_dict.
json,/Users/hezekiah/Documents/GitHub/time_series_prediction/datasets/unimib_shar_activ
ities/v20200515/split-by=subject_id/collapsed_features_per_sequence/y_dict.json
output_dir: /tmp/results/unimib_shar_activities/v20200515/split-by=subject_id/collapsed
_features_per_sequence/logistic_regression
test_csv_files: /Users/hezekiah/Documents/GitHub/time_series_prediction/datasets/unimib
_shar_activities/v20200515/split-by=subject_id/collapsed_features_per_sequence/x_test.c
sv,/Users/hezekiah/Documents/GitHub/time_series_prediction/datasets/unimib_shar_activit
ies/v20200515/split-by=subject_id/collapsed_features_per_sequence/y_test.csv
train_csv_files: /Users/hezekiah/Documents/GitHub/time_series_prediction/datasets/unimi
b_shar_activities/v20200515/split-by=subject_id/collapsed_features_per_sequence/x_train
.csv,/Users/hezekiah/Documents/GitHub/time_series_prediction/datasets/unimib_shar_activ
ities/v20200515/split-by=subject_id/collapsed_features_per_sequence/y_train.csv
```

Hyperparameter Search results

Train Scores across splits

	params	mean_train_score	split0_train_score	split1_train_score	split2_train_score
0	{'C': 1e-07}	0.6317	0.6517	0.6271	0.6162

	params				
1	{'C': 1e-05}	0.7201	0.7273	0.7164	0.7167
2	{'C': 0.001}	0.8307	0.8320	0.8330	0.8270
3	{'C': 0.01}	0.8468	0.8481	0.8476	0.8447
4	{'C': 0.1}	0.8431	0.8434	0.8422	0.8438
5	{'C': 1.0}	0.8465	0.8447	0.8465	0.8482
6	{'C': 10.0}	0.8433	0.8444	0.8390	0.8464
7	{'C': 100.0}	0.8459	0.8461	0.8459	0.8456
8	{'C': 1000.0}	0.8436	0.8463	0.8395	0.8450

Heldout Scores across splits

	params	mean_test_score	split0_test_score	split1_test_score	split2_test_score
0	{'C': 1e-07}	0.6262	0.6612	0.6219	0.5955
1	{'C': 1e-05}	0.7150	0.7205	0.7223	0.7022
2	{'C': 0.001}	0.8178	0.8201	0.8244	0.8089
3	{'C': 0.01}	0.8356	0.8371	0.8338	0.8358
4	{'C': 0.1}	0.8313	0.8333	0.8237	0.8369
5	{'C': 1.0}	0.8356	0.8357	0.8273	0.8439
6	{'C': 10.0}	0.8340	0.8352	0.8264	0.8405
7	{'C': 100.0}	0.8328	0.8344	0.8247	0.8394
8	{'C': 1000.0}	0.8337	0.8365	0.8253	0.8392

file:///private/tmp/results/unimib_shar_activities/v20200515/split-by=subject_id/collapsed_features_per_sequence/logistic_regression/report.html

Page 5 of 5