Multiclass models

Version number	Model	Resampling	Hyperparameter Optimization	Crossvalidation	freatures pruned	Results	Precision	Recall	F1_macro	Overall accuracy	Overall macro F1
v6	RandomForest	RandomUnderSampler + RandomOverSampler			no	Class 1	0.76	0.84	0.80	0.71	0.57
						Class 2	0.73	0.65	0.69		
						Class 3	0.52	0.60	0.56		
						Class 4	0.53	0.14	0.22		
v7	RandomForest	BorderlineSMOTE			no	Class 1	0.76	0.83	0.79	0.70	0.56
						Class 2	0.73	0.65	0.68		
						Class 3	0.52	0.58	0.55		
						Class 4	0.43	0.15	0.22		
v8	RandomForest	RandomUnderSampler + RandomOverSampler	GridSearchCV		no	Class 1	0.76	0.84	0.80	0.71	0.56
						Class 2	0.73	0.65	0.68		
						Class 3	0.52	0.60	0.56		
						Class 4	0.53	0.14	0.22		
v9	GradientBoosting Classifier	class weights			no	Class 1	0.74	0.79	0.77	0.61	0.50
						Class 2	0.73	0.49	0.59		
						Class 3	0.40	0.44	0.42		
						Class 4	0.14	0.62	0.23		
v10	XGB Classifier	sample weights			no	Class 1	0.76	0.79	0.77	0.63	0.52
						Class 2	0.73	0.52	0.61		
						Class 3	0.41	0.47	0.44		
						Class 4	0.16	0.63	0.25		
v11	LGBM Classifer	class weights			no	Class 1	0.79	0.79	0.78	0.64	0.53
						Class 2	0.73	0.53	0.62		
						Class 3	0.42	0.49	0.45		
						Class 4	0.17	0.62	0.27		
v12	LGBM Classifer with focal loss				no	Class 1	0.20	0.15	0.17	0.17	0.18
						Class 2	0.42	0.15	0.23		
						Class 3	0.37	0.29	0.33		
						Class 4	0	0.07	0.01		
v21	RandomForest	RandomUnderSampler + RandomOverSampler	RandomizedGridSearchCV (n_iter=10)	StratifiedKFold (n_splits = 2)	yes	Class 1	0.72	0.79	0.76	0.60	0.49
						Class 2	0.72	0.49	0.58		
						Class 3	0.41	0.40	0.40		
						Class 4	0.14	0.63	0.23		
v22	RandomForest	RandomUnderSampler + RandomOverSampler	RandomizedGridSearchCV (n_iter=30)	StratifiedKFold (n_splits = 5)	yes	Class 1	0.73	0.78	0.75	0.60	0.49
						Class 2	0.71	0.50	0.58		
						Class 3	0.40	0.42	0.41		
						Class 4	0.14	0.60	0.22		
v23	DNN (3 dense, 2 dropout layers)	inverse class weights	-	-	yes	Class 1	0.41	1	0.58	0.41	0.15
						Class 2	0	0	0		
						Class 3	0	0	0		
						Class 4	0	0	0		
v24	CatBoost	inverse class weights	-	-	yes	Class 1	0.75	0.78	0.77	0.62	0.51
						Class 2	0.72	0.53	0.61		
						Class 3	0.41	0.43	0.42		
						Class 4	0.14	0.59	0.23		
v31	XGB Classifier	inverse class weights	RandomizedGridSearchCV (n_iter=10)	StratifiedKFold (n_splits = 2)	yes	Class 1	0.74	0.76	0.75	0.61	0.50
						Class 2	0.70	0.52	0.60		
						Class 3	0.40	0.44	0.60		
						Class 4	0.15	0.59	0.24		

Legend:
Class 1 Uninjured
Class 2 Lightly injured
Class 3 Hospitalized injured
Class 4 Killed

Binary class models

Version number	Model	Resampling	Hyperparameter Optimization	Crossvalidation	freatures pruned	Results	Precision	Recall	F1_macro	Overall accuracy	Overall macro F1
v41	Random Forest	-	RandomizedGridSearchCV (n_iter=10)	StratifiedKFold (n_splits = 2)	no	Class 1	0.75	0.78	0.76	0.80	0.80
						Class 2	0.84	0.81	0.83		
v42	Random Forest	-	RandomizedGridSearchCV (n_iter=10)	StratifiedKFold (n_splits = 2)	yes	Class 1	0.75	0.77	0.76	0.80	0.79
						Class 2	0.83	0.82	0.82		
v51	XGB Classifier	-	RandomizedGridSearchCV (n_iter=10)	StratifiedKFold (n_splits = 2)	no	Class 1	0.72	0.83	0.77	0.80	0.79
						Class 2	0.86	0.78	0.82		

Legend:
Class 1 Uninjured
Class 2 Injured / killed