1. Logistic Regression

No.	Model Name	Iteration	#variables	penalty	C	solver	max_iter	train	test	oot
1	Logistic Regression	1	10	l2	1	lbfgs	10	0.648	0.643	0.362
		2	10	l2	1	lbfgs	100	0.650	0.647	0.331
		3	10	l1	1	liblinear	1000	0.641	0.663	0.327
		4	15	None	None	lbfgs	100	0.669	0.648	0.297
		5	15	None	None	lbfgs	1000	0.665	0.651	0.301
		6	20	None	None	lbfgs	100	0.673	0.657	0.370
		7	20	None	None	lbfgs	1000	0.669	0.675	0.357

2. Decision Tree

No.	Model Name	Iteration	#variables	criterion	splitter	max_depth	min_samples_split	min_samples_leaf	max_features	train	test	oot
2	Decision Tree	1	10	gini	best	2	2	1	2	0.572	0.574	0.369
		2	10	gini	best	15	100	20	8	0.860	0.746	0.479
		3	10	gini	random	50	500	50	10	0.661	0.634	0.427
		4	15	gini	random	100	1000	70	8	0.633	0.618	0.438
		5	15	entropy	best	None	800	50	10	0.710	0.676	0.491
		6	15	gini	best	None	600	50	15	0.732	0.688	0.512
		7	20	entropy	random	None	800	50	8	0.658	0.634	0.318
		8	20	gini	best	None	1000	80	15	0.817	0.759	0.396
		9	20	gini	random	None	500	2	20	0.736	0.715	0.419

3. Random Forest

No.	Model Name	Iteration	#variables	n_estimators	max_depth	min_samples_split	min_samples_leaf	max_features	bootstrap	train	test	oot
3	Random Forest	1	10	3	3	2	1	5	True	0.648	0.634	0.451
		2	10	30	10	10	10	3	True	0.876	0.793	0.560
		3	10	100	5	50	50	5	False	0.718	0.712	0.541
		4	15	100	5	70	70	3	True	0.709	0.686	0.531
		5	15	150	10	100	100	10	False	0.815	0.755	0.543
		6	15	80	8	80	50	5	True	0.805	0.746	0.546
		7	20	100	5	50	30	20	True	0.729	0.733	0.372
		8	20	80	10	80	80	15	False	0.850	0.786	0.483
		9	20	100	15	100	50	10	False	0.908	0.836	0.526

	Model Name	Iteration	#variables	max_depth	learning_rate	min_samples_split	min_samples_leaf	n_estimators	train	test	oot
4	Gradient Boosting Model	1	10	5	0.01	2	1	5	0.699	0.652	0.454
		2	10	10	0.001	100	20	50	0.841	0.755	0.508
		3	10	8	0.001	50	10	30	0.799	0.706	0.472
		4	15	10	0.01	100	50	30	0.869	0.769	0.493
		5	15	15	0.001	100	100	10	0.781	0.729	0.455
		6	15	15	0.001	150	150	30	0.750	0.702	0.408
		7	20	10	0.001	50	50	30	0.838	0.772	0.383
		8	20	10	0.001	100	100	80	0.817	0.763	0.375
		9	20	20	0.001	200	200	300	0.810	0.759	0.359

	Model Name	Iteration	#variables	max_iter	hidden_layer_sizes	activation	solver	learning_rate	train	test	oot
5	Neural Network	1	10	200	(10,)	relu	adam	0.001	0.681	0.677	0.527
		2	10	100	(100,)	relu	adam	0.01	0.714	0.701	0.528
		3	10	200	(200,)	logistic	sgd	0.01	0.708	0.691	0.545
		4	15	200	(100,)	relu	adam	0.001	0.833	0.790	0.527
		5	15	400	(300,)	relu	adam	0.001	0.853	0.808	0.534
		6	15	200	(100,)	relu	sgd	0.01	0.743	0.737	0.541
		7	20	200	(100,)	relu	lbfgs	0.001	0.899	0.804	0.341
		8	20	100	(100,)	identity	lbfgs	0.001	0.669	0.667	0.365
		9	20	100	(100,)	relu	sgd	0.01	0.789	0.769	0.551