Insurance AI

1.Multiple Linear Regression(R2 value) - 0.7894790349867009

2.SVM

kernel	C	Standard scalar	gamma	r2
Linear	0.1	no	scale	-0.12207
Linear	12	yes	scale	0.49921
Linear	1000	yes	scale	0.76493
Linear	0.1	yes	scale	-0.08095
Poly	1	yes	auto	-0.07569
Poly	1250	yes	scale	0.8577
Poly	**3500**	**yes**	**scale**	**0.8599**
Poly	1250	no	scale	-0.04206
rbf	0.01	yes	scale	-0.0896
rbf	100	yes	auto	0.320031

(R2 value) = 0.8599

3.Decision Tree

criterion	max_features	splitter	r2
squared_error	auto	best	0.69145
squared_error	sqrt	random	0.68466
squared_error	**log2**	**best**	**0.72960**
friedman_mse	auto	random	0.711265
friedman_mse	log2	random	0.65542
friedman_mse	sqrt	best	0.67163
absolute_error	auto	Random	0.736037
absolute_error	log2	random	0.637412

absolute_error	sqrt	best	0.699186
poisson	sqrt	random	0.692572
poisson	log2	best	0.693306
poisson	auto	random	0.712434

(R2 value)= 0.72960

4.Random Forest

criterion	max_features	n_estimators	r2
squared_error	None	500	0.8545478
squared_error	sqrt	1	0.6837146
absolute_error	log2	1340	0.8733625
absolute_error	None	8	0.817466
friedman_mse	sqrt	14	0.860491
friedman_mse	log2	10	0.843914
friedman_mse	**sqrt**	**10000**	**0.872436**
poisson	sqrt	132	0.872017
poisson	log2	100	0.871520
poisson	None	346	0.852278

(R2 value) = 0.872436

The highest R2 value is obtained by Random Forest model with the accuracy of 0.872436.