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CS556: Mathematical Foundations of Machine Learning – **Near-Earth Objects**

Metrics	Training set (80%)			Testing model (20%)		
	Logistic Regression	SVM	PCA	Logistic Regression	SVM	PCA
Precision	0.3044785091674181	0.3070745886294216	0.3124211588596417	0.2950688760231583	0.29709576138147564	0.30802103879026954
Accuracy	0.785236845318032	0.7848400683677207	0.8362837260407765	0.7816028810352195	0.7806872978087042	0.8356222913996215
Recall	0.9698420296792724	0.9945747566618797	0.5927876176799106	0.9691803278688524	0.9927868852459016	0.6144262295081967
F1	0.4634564794692897	0.4692640692640693	0.4091860337041524	0.4524028160391796	0.4573327291949856	0.41033501204291656

Salient Project Features:

From above tabulation, it is clear that Training model is relatively more precise and accurate. In contrast, the recall. Also the best model is SVM with dimensionally reduced data obtained from PCA.