

### Phase 1 results

Classifier	Parameters	Mean F1
KNeighborsClassifier	n_neighbors=1	0.148941868
KNeighborsClassifier	n_neighbors=3	0.062646352
KNeighborsClassifier	n_neighbors=5	0.062646352
SVC (Best result)	C=2000, kernel='rbf',gamma=0.0001	0.630096922

### Phase 2 best results

Best result for KNeighborsClassifier

PCA parameters n\_components=50,svd\_solver='randomized',whiten=True

KNeighborsClassifier parameters n\_neighbors=1

Mean F1 0.172720947

Best result for SVC

PCA parameters n\_components=450

SVC parameters C=2000, kernel='rbf',gamma=0.0001

Mean F1 0.522980322