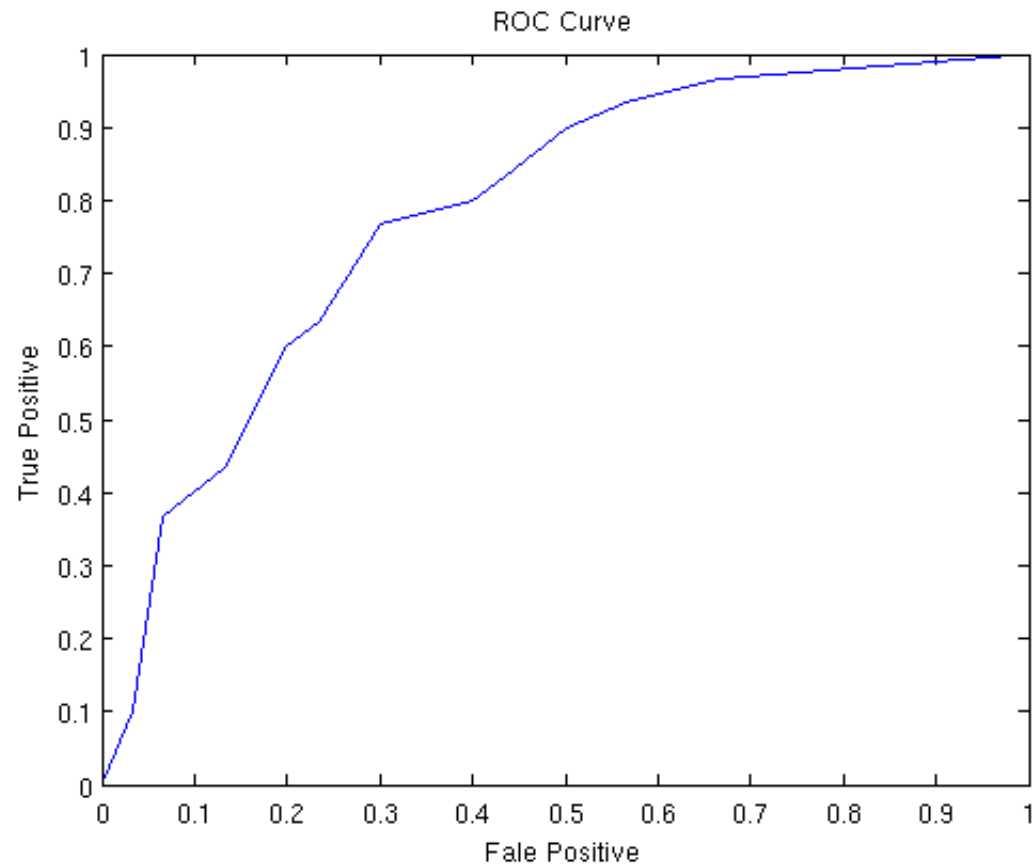# Report Meeting Week 4
Benjamin Mears

- Week's Progress

- Preliminary Results

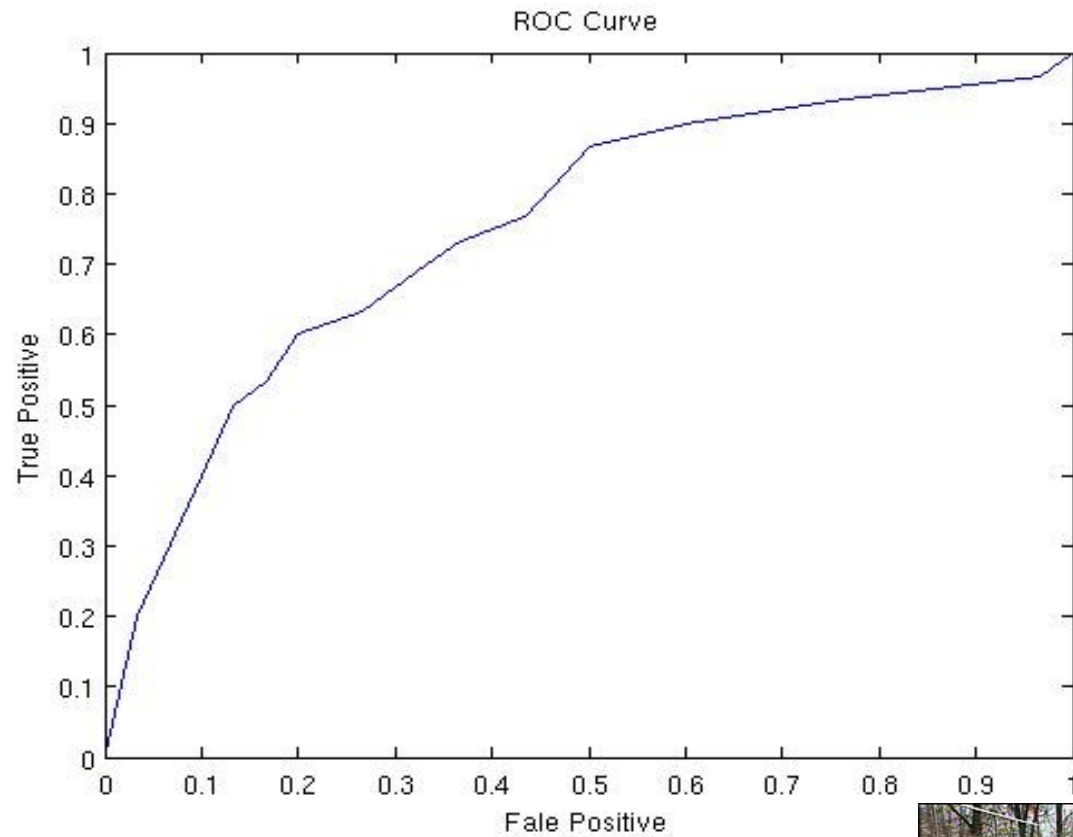- Where to next?

Week's Progress

- Basic system up and running
  - Harris-Laplace detector with Sift feature descriptors
  - Baseline results
- Code to make ROC curves
- Began experimenting with SVM code in Matlab
- Comparison of basic SVM vs Logistic regression

Boat_Ship

Person Playing Soccer

SVM Vs Logistic Regression

	SVM		Logistic Regression	
	True Positive	False Positive	True Positive	False Positive
Boat_Ship	73.0%	20.0%	70.0%	30%
Airplane Flying	66.7%	13.3%	63.3%	16.7%
Nighttime	86.7%	16.7%	63.3%	16.7%
Cityscape	76.7%	20.0%	46.7%	36.7%
Mountain	90.0%	20.0%	86.7%	33.3%
Kitchen	70.0%	30.0%	66.7%	46.7%
Bridge	76.7%	23.3%	63.3%	40.0%
Person Playing Soccer	66.7%	16.7%	73.3%	30.0%

Where To Next?

- Ben-SVM

- Sean-Regularization & different features/sampling

- Silvino-Bootstrapping

Next Week's Goal Plans

- Run trials on a larger portion of data set

- Document results for all features

- Begin experimenting with different SVM kernels

  - Read up more on SVM

  - Implement Histogram Intersection Kernel

- Compare old results to new results

Still to explore:

- Incorporating motion
  - Person-in-act-of-sitting down
  - Person-riding-bicycle
- Extracting keyframes
  - Constant Interval vs keyframes of interest
- Dealing with small number of positive examples
  - Duplicate positive examples?