Midterm Notes

1. Introduction:   
     
    be a point in a 3D space.  
   Let be the projection of the point on a 2D plane through focal point.
2. Gaussian Coevolution and Image Noise:   
     
   A function is separable if
3. Robust Methods  
   :   
     
   Let be the smallest number of points required to estimate a parameter, 2 for a line.

Let be the number iterations.  
Let be the ratio of the inliers to points.   
Let be the probability that the algorithm produce a useful output.

1. Image Motion  
     
   Let be a 3D point with  
   And let be the perspective projection of where  
     
   Also, let be the velocity of, where, is the instantaneous rate of translation and is the instantaneous rate of rotation.   
     
   Using and, the value of, the image optical flow, is derivable.
2. Image Histograms
3. Edge Detection
4. Hough Transforms
5. Stereo Geometry