

Outline

CS376 Computer Vision

Wednesday, Feb 23, 2011

Midterm is on March 9, in 2 weeks.

Alignment and fitting

- Interactive segmentation examples (follow-up to deformable contours)
 - Interactive forces in a deformable contour
 - Intelligent scissors – boundary snapping with user-given seed point
 - Graph cuts with hard constraints
 - “Grab cut” with iterative foreground refinement

- Feature-based alignment
 - Definition of alignment, place in fitting
 - 2D transformations
 - Parametric transformations
 - Representing with matrices, homogeneous coordinates
 - Affine fit
 - Fitting with least squares given correspondences
 - What are the correspondences?
 - Recognition by alignment
 - Problem: outliers
 - RANSAC
 - Algorithm definition
 - RANSAC for line fitting (example)
 - Pros and cons

Reminder: Pset 2 is due March 2.