# SVM[S(1vA)-C(0.0625)-J(1)-K(5)-Kernel(Intersection)]_BOF[K(512)-L(3)-Norm(L2[N(1)])-Kmeans(cpp)]-OfChannels-(DENSE[S(12-14-17-20-24-29-35-42-51-61)-Lib(mylib)]+SIFT[Norm(L2[N(1)])-Lib(colorDescriptor)])

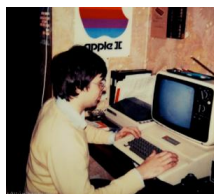April 8, 2010

Classifier: SVM one VS all (C = 0.0625, J = 1), Intersection kernel: sum_i(min(Xi, Yi)), 5-fold cross-validation
Signature: Bag of features (K = 512, histogram normalization: L2 (norm = 1), K-means library: cpp)
Channels:
(DENSE[spacing = 12-14-17-20-24-29-35-42-51-61, library: mylib]) x (SIFT[normalization: L2 (norm = 1), library: colorDescriptor])
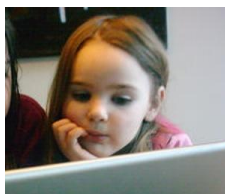
1 InteractingWithComputer
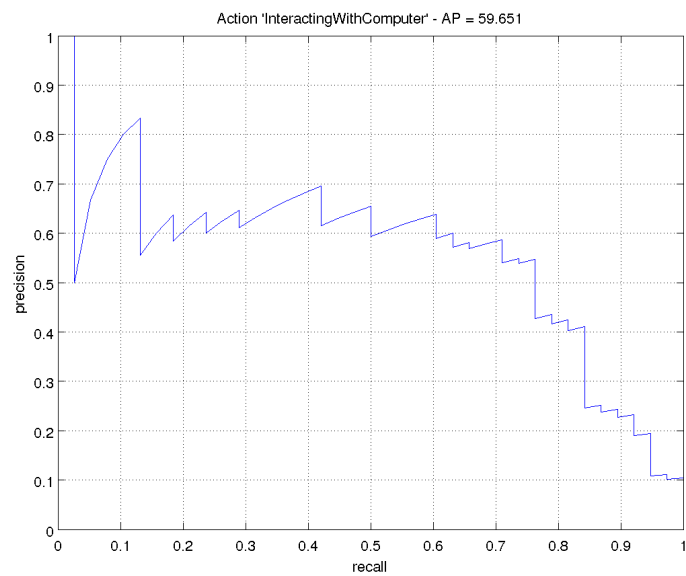
(a) 0.58   (b) 0.04   (c) 0.04   (d) 0.03

(e) 0.02

Figure 1: InteractingWithComputer: Correctly classified images, highest score

(a) -0.33　　　　(b) -0.36　　　　(c) -0.41　　　(d) -0.43

(e) -0.45

Figure 2: InteractingWithComputer: Correctly classified images, smallest score

(a) 0.23　　　　(b) -0.03　　　　(c) -0.06　　　(d) -0.08

(e) -0.13
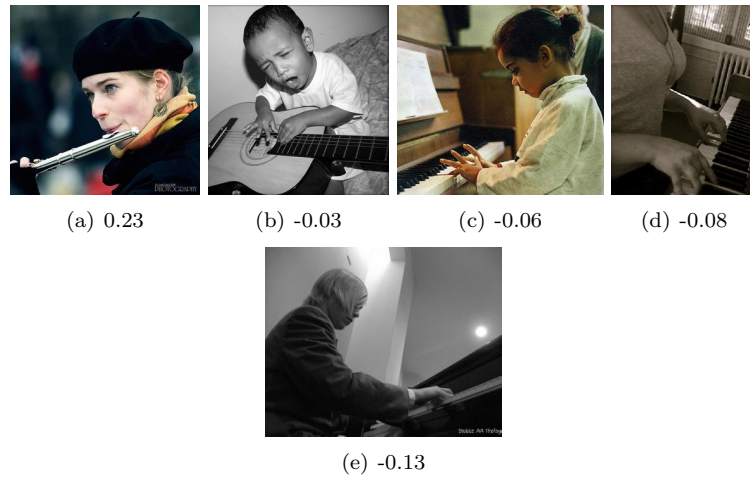
Figure 3: InteractingWithComputer: Misclassified images, highest score

2 Photographing

Action 'Photographing' - AP = 31.808

(a) -0.03   (b) -0.19   (c) -0.26   (d) -0.30   (e) -0.33
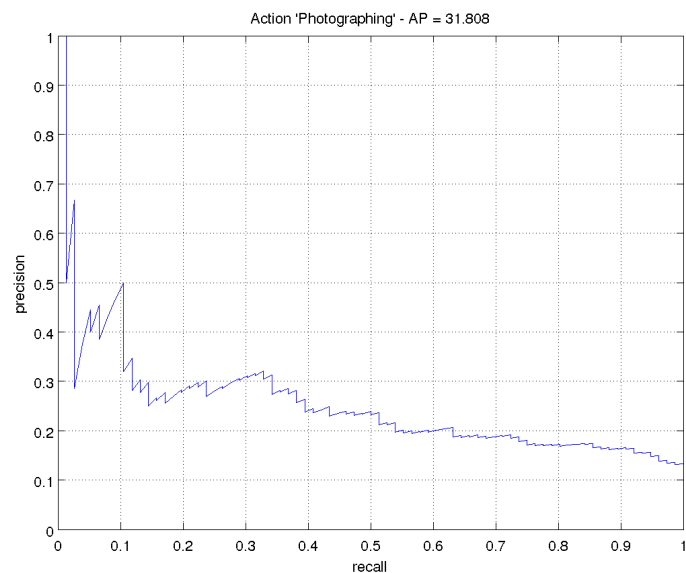
Figure 4: Photographing: Correctly classified images, highest score

(a) -0.46   (b) -0.48   (c) -0.49   (d) -0.50   (e) -0.59

Figure 5: Photographing: Correctly classified images, smallest score

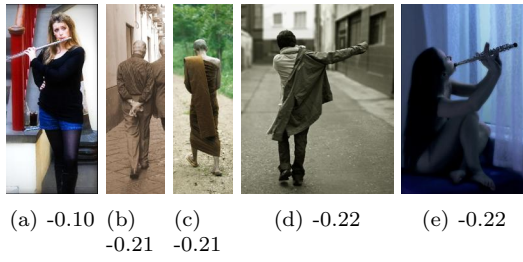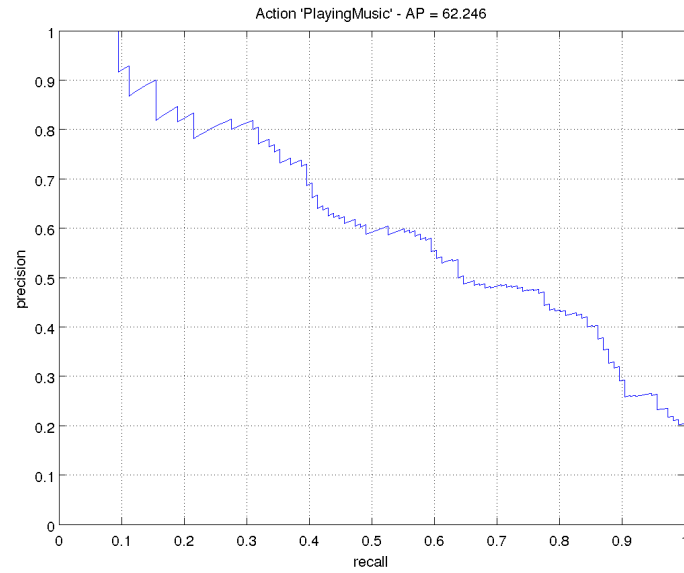(a) -0.10   (b) -0.21   (c) -0.21   (d) -0.22   (e) -0.22

Figure 6: Photographing: Misclassified images, highest score

3 PlayingMusic

(a) 0.26   (b) 0.24   (c) 0.11   (d) 0.10

(e) 0.05

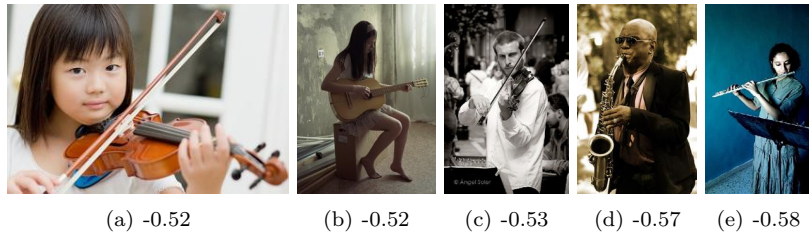Figure 7: PlayingMusic: Correctly classified images, highest score

(a) -0.52   (b) -0.52   (c) -0.53   (d) -0.57   (e) -0.58

Figure 8: PlayingMusic: Correctly classified images, smallest score

(a) -0.15   (b) -0.25   (c) -0.27   (d) -0.28   (e) -0.31
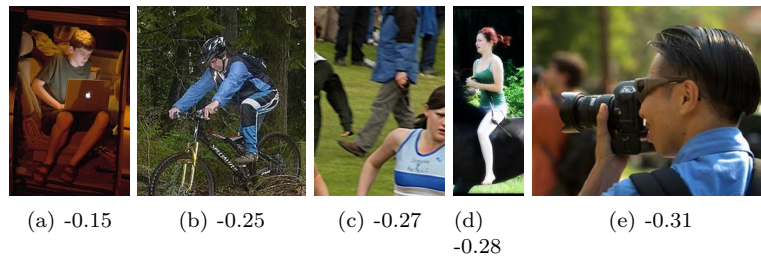
Figure 9: PlayingMusic: Misclassified images, highest score

4 RidingBike

Action 'RidingBike' - AP = 79.357

| (a) 0.43 | (b) 0.42 | (c) 0.41 | (d) 0.40 | (e) 0.28 |
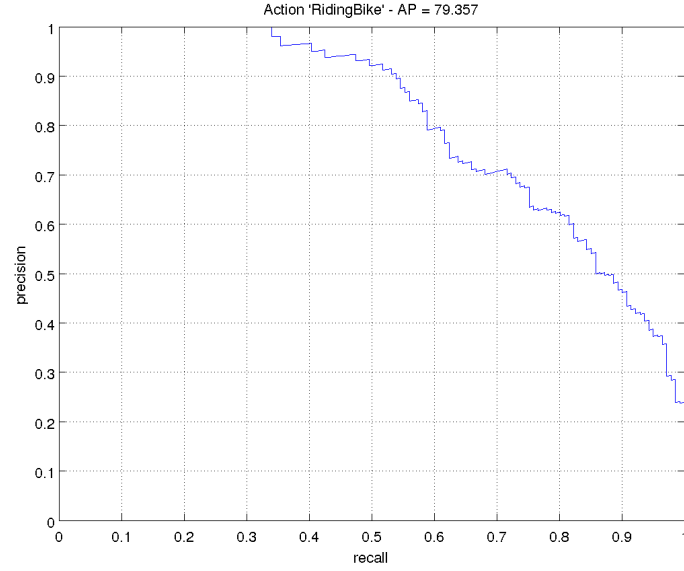
Figure 10: RidingBike: Correctly classified images, highest score

| (a) -0.52 | (b) -0.52 | (c) -0.54 | (d) -0.55 | (e) -0.57 |
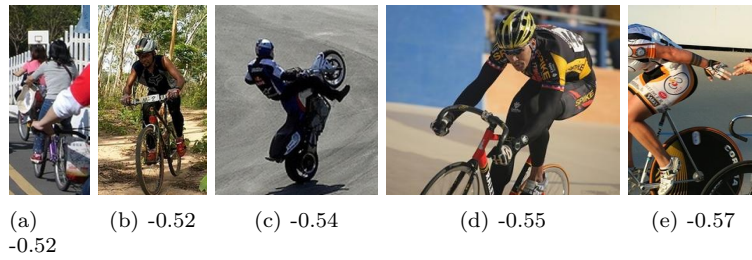
Figure 11: RidingBike: Correctly classified images, smallest score

(a) -0.12   (b) -0.13   (c) -0.18   (d) -0.19   (e) -0.23

Figure 12: RidingBike: Misclassified images, highest score

5 RidingHorse

(a) 0.18 (b) 0.14   (c) 0.12   (d) 0.12   (e) 0.05
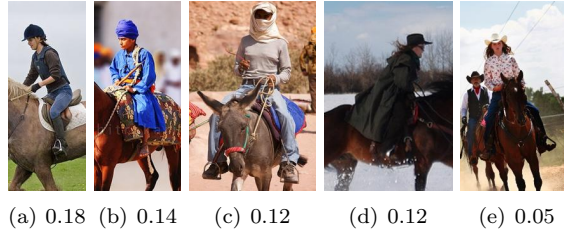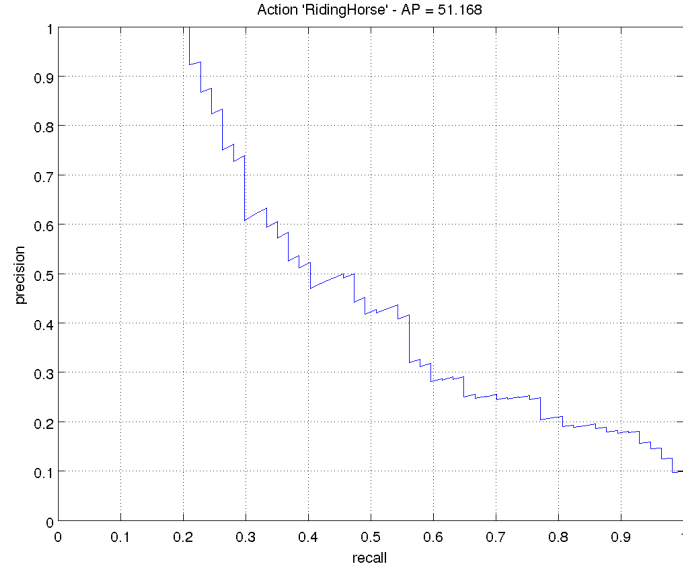
Figure 13: RidingHorse: Correctly classified images, highest score

(a) -0.38   (b) -0.39   (c) -0.42 (d)   (e) -0.49
-0.43

Figure 14: RidingHorse: Correctly classified images, smallest score

(a)
-0.15   (b) -0.20   (c) -0.24   (d) -0.25   (e) -0.26
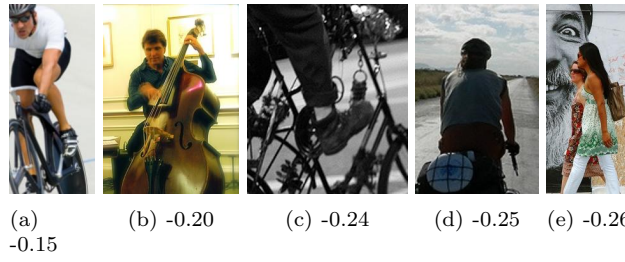
Figure 15: RidingHorse: Misclassified images, highest score

6 Running

(a) 0.47   (b) 0.28   (c) 0.26   (d) 0.25   (e) 0.08
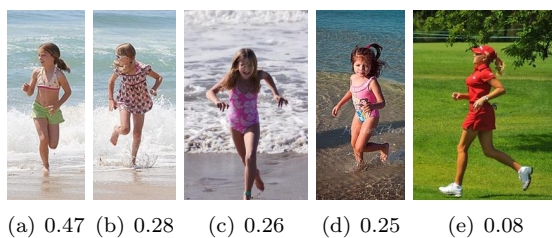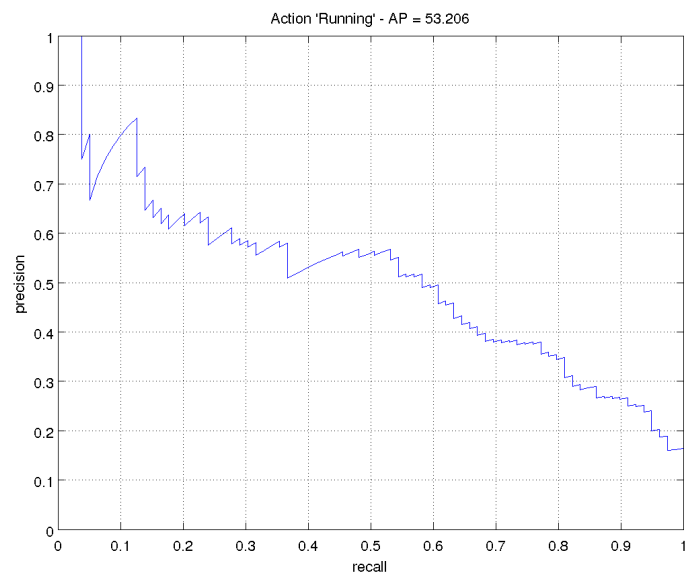
Figure 16: Running: Correctly classified images, highest score

(a) -0.47   (b) -0.49   (c) -0.52   (d) -0.54   (e) -0.60

Figure 17: Running: Correctly classified images, smallest score

(a) 0.26   (b) 0.08   (c) -0.01   (d)   (e)
                                     -0.02   -0.07
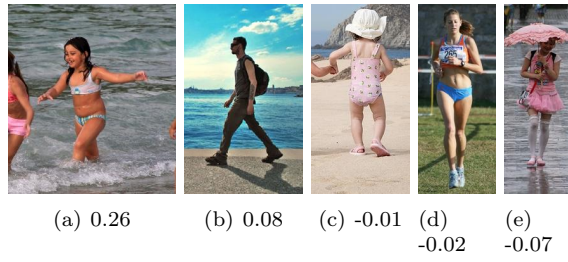
Figure 18: Running: Misclassified images, highest score

7 Walking

Action 'Walking' - AP = 60.921

(a) 0.25 (b) 0.21 (c) 0.20 (d) 0.11 (e) 0.06
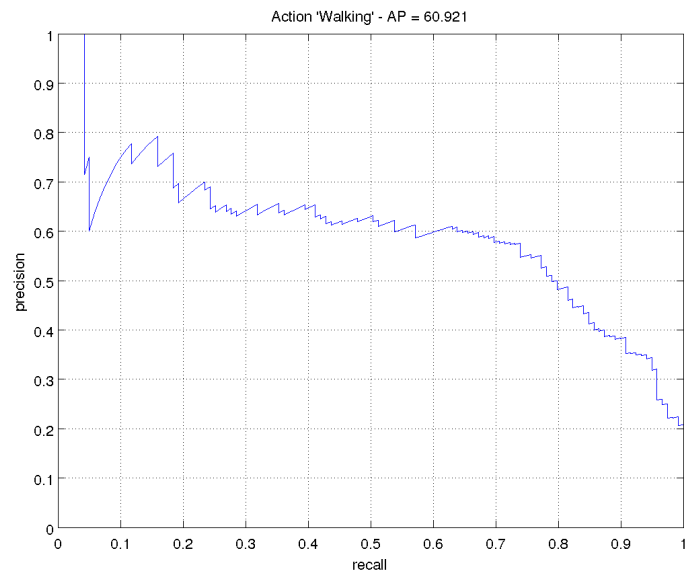
Figure 19: Walking: Correctly classified images, highest score

(a) -0.43 (b) -0.44 (c) -0.44 (d) -0.46 (e) -0.47
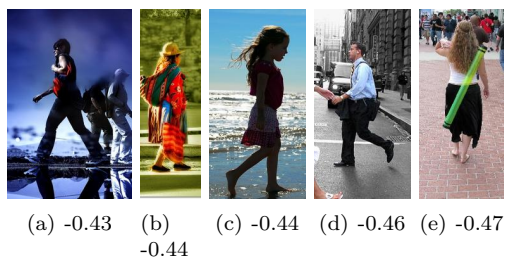
Figure 20: Walking: Correctly classified images, smallest score

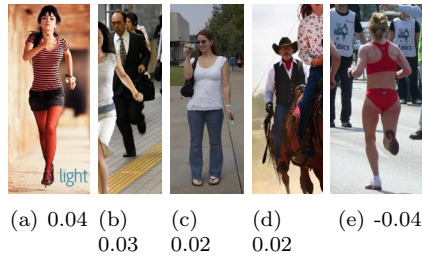(a) 0.04 (b)   (c)   (d)   (e) -0.04
           0.03   0.02   0.02

Figure 21: Walking: Misclassified images, highest score