

Summary for Evaluating Keypoint Detectors

1. Number of Features Extracted Using Each Approach

- **SIFT Features:**
 - Total number of features extracted: 310568
- **HOG Features:**
 - Total number of features extracted: 6480000

2. Number of Correct Matches Found

- **SIFT Features:**
 - Number of correct matches: 1082
- **HOG Features:**
 - Number of correct matches: 2036

3. Accuracy of the Classifiers When Evaluated on the Test Set

- **SIFT Features:**
 - Accuracy: 0.27
- **HOG Features:**
 - Accuracy: 0.51

Analysis and Conclusion

These results indicate significant differences between SIFT and HOG feature extraction methods in terms of both the number of features extracted and their accuracy in matching keypoints. HOG features extracted a much larger number of features compared to SIFT, which might indicate its effectiveness in capturing more detailed information in the images. However, the accuracy metrics show that HOG features also performed better in terms of correct matches and overall accuracy on the test set.