

Supplementary Material: SaccadeNet: A Fast and Accurate Object Detector

Shiyi Lan¹ Zhou Ren² Yi Wu² Larry S. Davis¹ Gang Hua²
¹University of Maryland, College Park ²Wormpex AI Research

sylan@cs.umd.edu, lsd@umiacs.umd.edu, frenzhou200622, ywu.china, ganghua@gmail.com

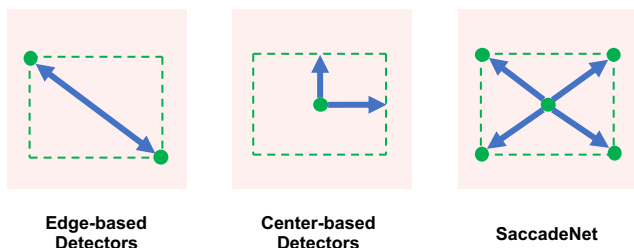


Figure 1. The figure illustrates the pipelines of edge-keypoint-based, center-keypoint-based detectors, and SaccadeNet

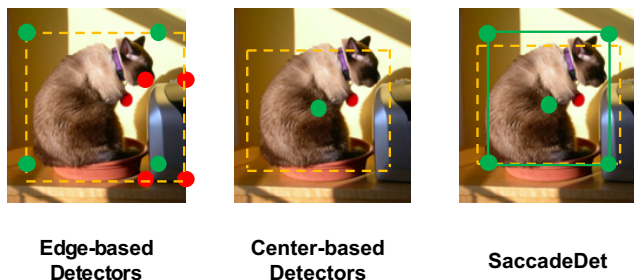


Figure 2. On the left, green points represent the corners of a cat and red points represent the corners of another object. The issue existed here is that the bottom-right points of red color may be misinterpreted as the bottom-right corners of the cat. In the middle, center-based detectors may not be able to locate boundary accurate enough. On the right, our proposed SaccadeNet not only avoids mismatching problem but also locates accurate boundary.

1. Supplementary

1.1. An example shows the superiority of SaccadeNet over other keypoint-based detectors.

We illustrate the pipeline of center-keypoint-based, edge-keypoint-based detectors, and SaccadeNet in Figure 1. SaccadeNet make use more information than other detectors. Next, we demonstrate why we need to jointly utilize feature of center and corner keypoints intuitively in Figure 2.

Figure 3. More qualitative results.

1.2. More Qualitative Results

Now we show more qualitative results in Figure 3.