

Supplementary Material - Bi-directional Frame Interpolation for Unsupervised Video Anomaly Detection

Failure Cases. We demonstrate two serious cases to show the limitations of the proposed model. As shown in Figure.1 and Figure.2, we use colors to indicate ground truth, with blue areas for normal sequences and red areas for abnormal sequences, and use a line graph to represent the predicted anomaly scores for each frame. A false positive case is shown in Figure.1, where two persons in this sequence overlap causing the model to predict it as an anomalous motion. When there are two persons almost overlapping in the video, there is an error in the prediction of normal motion, which leads to high anomaly scores. Figure.2 shows a false negative case, where the anomalous motion is blocked by the stone column and there is a rare object in the video. We observe that the model gives a lower anomaly score when the anomaly object is blocked. In addition, the score from the anomalous motion is lower than a rare object, a *red bag*, resulting in the anomaly score of this anomalous frame that is not significantly different from the other normal frames.

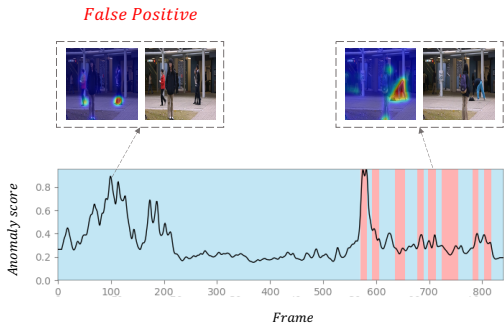


Figure 1. Visualization of failure cases. Frames are selected from CUHK Avenue sequence 01.

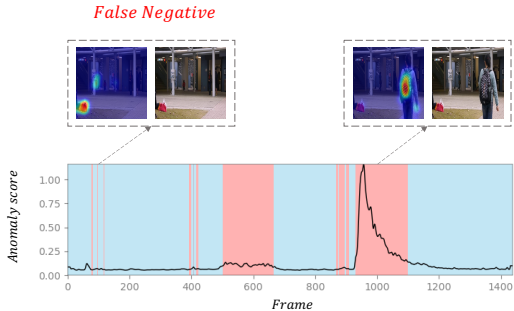


Figure 2. Visualization of failure cases. Frames are selected from CUHK Avenue sequence 10.