## 1 More results to establish statistical confidence

- 2 Apart from the digit pairs presented in the main paper, we have included four more results from new
- digit pairs in this draft. The aim of presenting different digit pairs is to demonstrate the confidence of
- 4 the proposed metric "Absolute area of ACE (A-ACE)". The sample digits are illustrated in subfigures
- (a) and (b) of figure 1, 2, 3, and 4. The corresponding subfigure (c) in each of those figures shows
- $_{6}$  the absolute area of ACE for the handpicked pixels. The pixels which are associated with highest
- absolute area of ACE are the distinguishing pixels for that particular digit. The handpicked pixels
- 8 are marked with red color in the sample digits and background pixels are marked with green color.

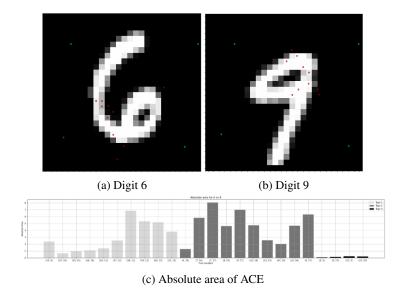


Figure 1: Sample digits (a) 6 and (b) 9. (c) Proposed Metric : Absolute area of ACE "A-ACE" for handpicked pixels.

## 9 2 Comparison with SOTA

- 10 To demonstrate the effectiveness of our proposed metric "A-ACE", we have used an image from
- 11 ILSVRC validation set to compute "A-ACE". The model used is a pretrained model ResNet-101
- 12 The goal of this experiment is to illustrate comparison with the cnn fixation method.

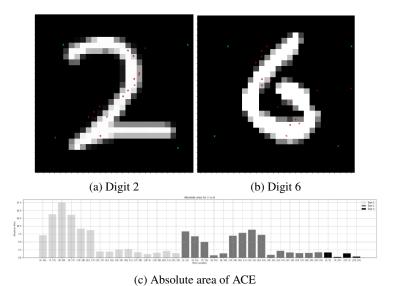


Figure 2: Sample digits (a) 2 and (b) 6. (c) Proposed Metric : Absolute area of ACE "A-ACE" for handpicked pixels

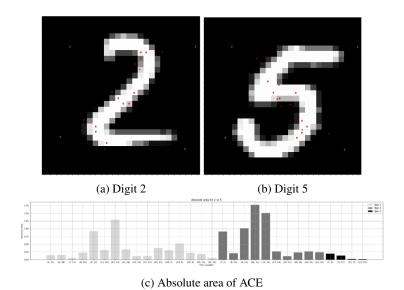


Figure 3: Sample digits (a) 2 and (b) 5. (c) Proposed Metric : Absolute area of ACE "A-ACE" for handpicked pixels

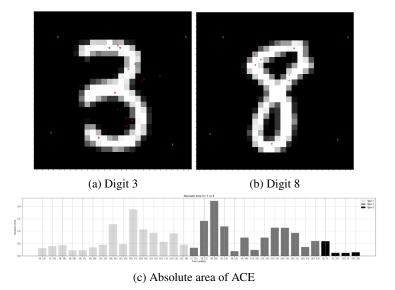


Figure 4: Sample digits (a) 3 and (b) 8. (c) Proposed Metric : Absolute area of ACE "A-ACE" for handpicked pixels

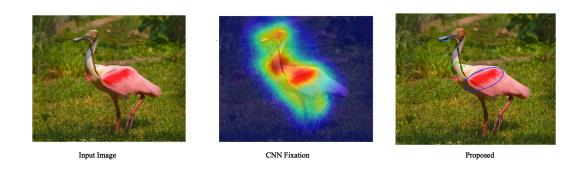


Figure 5: Comparison of the localization regions for sample images from ILSVRC validation set for CNN fixation and proposed metric for ResNet-101. Our metric shows higher A-ACE value for the encircled region in the descending order encoded by color - violet, green, blue and red

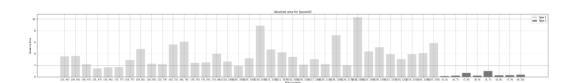


Figure 6: Absolute area of ACE for handpicked pixels of input image