## Supplementary material:

# Single-Stage Instance Shadow Detection with Bidirectional Relation Learning

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There are three parts in this supplementary material.

- Part 1 presents additional comparison results produced by SOTA and our method.
- Part 2 presents more results produced by our method and the "paired locations" learned by our method.
- Part 3 presents the failure cases produced by SOTA and our method.

## Part 1: Additional Comparison Results



(a) input images



(c) SSIS (ours)





(a) input images



(c) SSIS (ours)

Figure 2: Visual comparison of instance shadow detection results produced by SOTA (b) and our method (c).

Part 2: Additional Instance Shadow Detection Results and the "Paired Locations" Learned by Our Method



Figure 3: More instance shadow detection results and the paired locations produced by our SSIS over a wide variety of objects and shadows.

#### Part 3: Failure Cases

Fig. 4 shows the examples, in which our method may fail, when the objects and shadows are too cluttered or when the shadows are too close to one another. However, our results are already (clearly) better than those of the state-of-the-art method (LISA).



(a) Results from LISA [1]

(b) Results from our SSIS

Figure 4: Failure cases shared by the state-of-the-art method (i.e., LISA) and our SSIS.

### References

[1] Tianyu Wang<sup>\*</sup>, Xiaowei Hu<sup>\*</sup>, Qiong Wang, Pheng-Ann Heng, and Chi-Wing Fu. Instance shadow detection. In *IEEE Conference on Computer Vision and Pattern Recognition*, pages 1880–1889, 2020. \* Joint first authors. 3, 4, 6