## 7. Appendix: supplementary material

In this appendix, additional results generated by CSRNet from five datasets (ShanghaiTech [18], UCF\_CC\_50 [22], World-Expo'10 [3], UCSD [23], and TRANCOS [44]) are presented to demonstrate the validity of our design. Two criteria are used as the PSNR (Peak Signal-to-Noise Ratio) and the SSIM (Structural Similarity in Image [43] to evaluate our design's quality of generated density maps. Samples from these 5 datasets are shown in Fig. 7 to Fig. 12, which represent a variety of density levels.



Figure 7. Samples generated by CSRNet from ShanghaiTech Part\_A [18] dataset. The left column shows the original images; the medium column displays the ground truth density maps while the right column indicates our generated density maps.



Figure 8. Samples generated by CSRNet from ShanghaiTech Part\_B [18] dataset. The left column shows the original images; the medium column displays the ground truth density maps while the right column indicates our generated density maps.



Figure 9. Samples generated by CSRNet from UCF\_CC\_50 [22] dataset. The left column shows the original images; the medium column displays the ground truth density maps while the right column indicates our generated density maps.



Figure 10. Samples generated by CSRNet from WorldExpo'10 [3] dataset. The left column shows the images masked by the ROI (region of interest); the medium column displays the ground truth density maps and the right column indicates our generated density maps.



Figure 11. Samples generated by CSRNet from UCSD [23] dataset. The left column shows the images masked by the ROI; the medium column displays the ground truth density maps and the right column indicates our generated density maps.



Figure 12. Samples generated by CSRNet from TRANCOS [44] dataset. The left column shows the images masked by the ROI; the medium column displays the ground truth density maps while the right column shows the generated density maps.