

EL-GAN: Edge-Enhanced Generative Adversarial Network for Layout-to-Image Generation (Supplementary Material)

Lin Gao^{ID}, Lei Wu^{ID} and Xiangxu Meng

School of Software, Shandong University, Jinan, Shandong, China

In this supplementary material, we present more qualitative results. Methods for qualitative comparison specifically include Layout2Im [ZMYS19], LAMA [LWK*21], LostGAN-V2 [SW20], and CAL2I [HLY*21]. Figures 1 to 6 show the performance of each method on the COCO-Stuff [CUF18] and Visual Genome [KZG*17] datasets.

References

- [CUF18] CAESAR H., UIJLINGS J., FERRARI V.: Coco-stuff: Thing and stuff classes in context. In *Proceedings of the IEEE conference on computer vision and pattern recognition (CVPR)* (2018), pp. 1209–1218. [1](#), [2](#), [3](#), [5](#)
- [HLY*21] HE S., LIAO W., YANG M. Y., YANG Y., SONG Y.-Z., ROSENHAHN B., XIANG T.: Context-aware layout to image generation with enhanced object appearance. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)* (2021), pp. 15049–15058. [1](#)
- [KZG*17] KRISHNA R., ZHU Y., GROTH O., JOHNSON J., HATA K., KRAVITZ J., CHEN S., KALANTIDIS Y., LI L.-J., SHAMMA D. A., ET AL.: Visual genome: Connecting language and vision using crowd-sourced dense image annotations. *International journal of computer vision (IJCV)* 123, 1 (2017), 32–73. [1](#), [2](#), [4](#), [6](#)
- [LWK*21] LI Z., WU J., KOH I., TANG Y., SUN L.: Image synthesis from layout with locality-aware mask adaption. In *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)* (2021), pp. 13819–13828. [1](#)
- [SW20] SUN W., WU T.: Learning layout and style reconfigurable gans for controllable image synthesis. *IEEE Trans on Pattern Analysis and Machine Intelligence (TPAMI)* (2020). [1](#)
- [ZMYS19] ZHAO B., MENG L., YIN W., SIGAL L.: Image generation from layout. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)* (2019), pp. 8584–8593. [1](#)

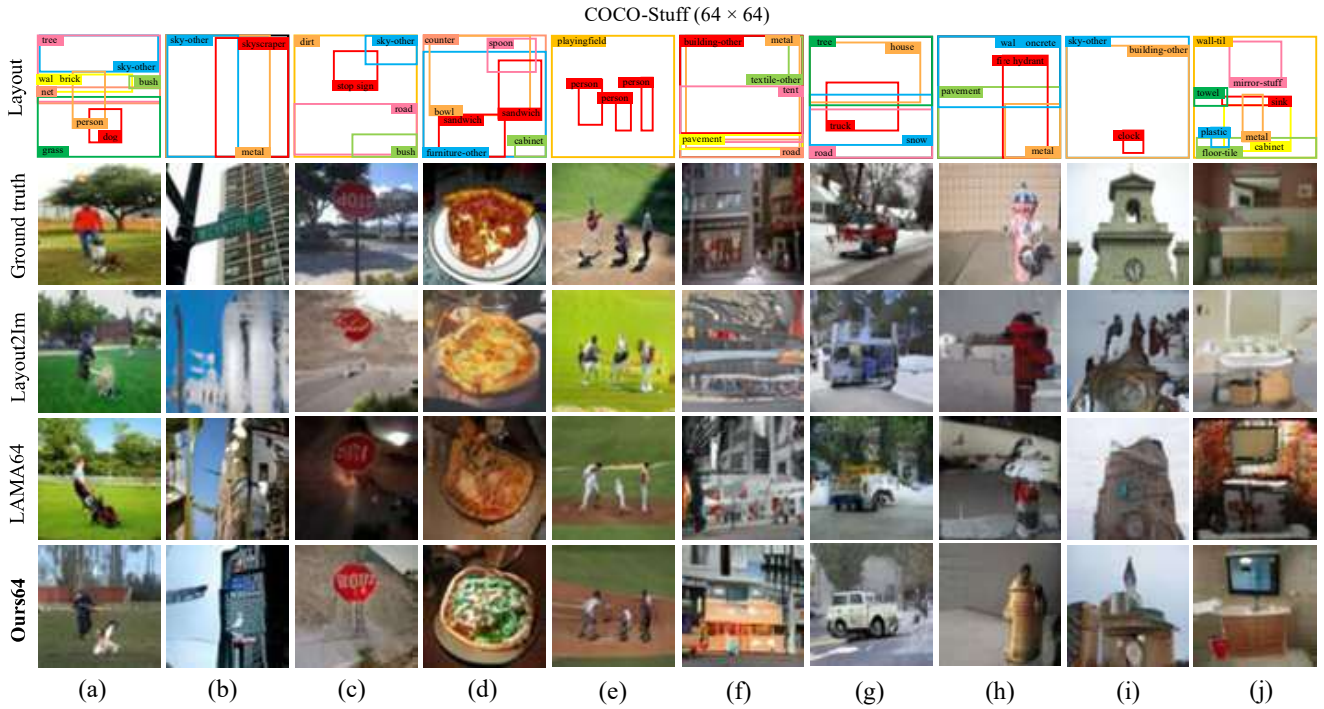


Figure 1: Examples of generating samples from a given layout using different methods on the COCO-Stuff [CUF18] dataset. All images are of 64×64 resolution.



Figure 2: Examples of generating samples from a given layout using different methods on the Visual Genome [KZG*17] dataset. All images are of 64×64 resolution.

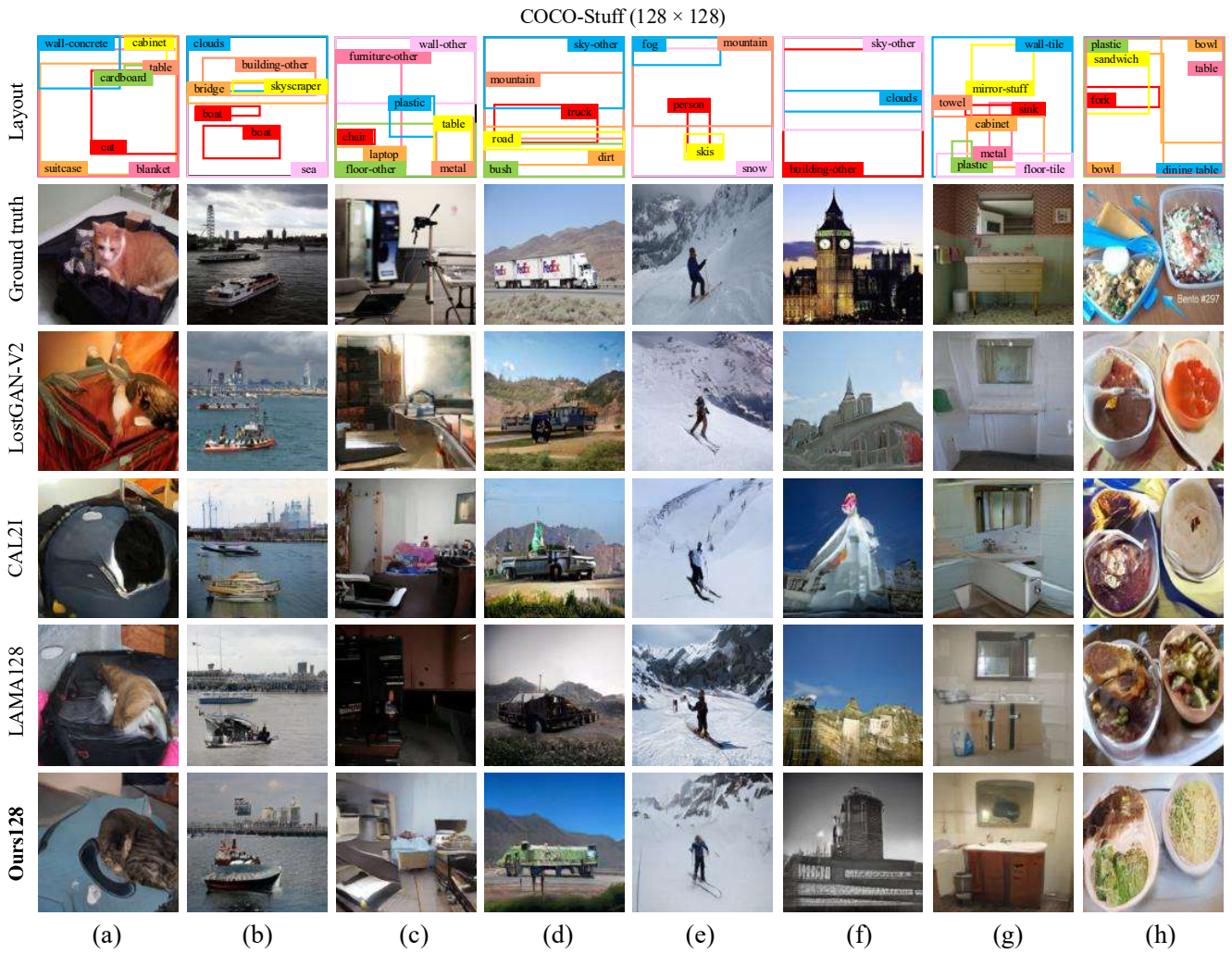


Figure 3: Examples of generating samples from a given layout using different methods on the COCO-Stuff [CUF18] dataset. All images are of 128 × 128 resolution.

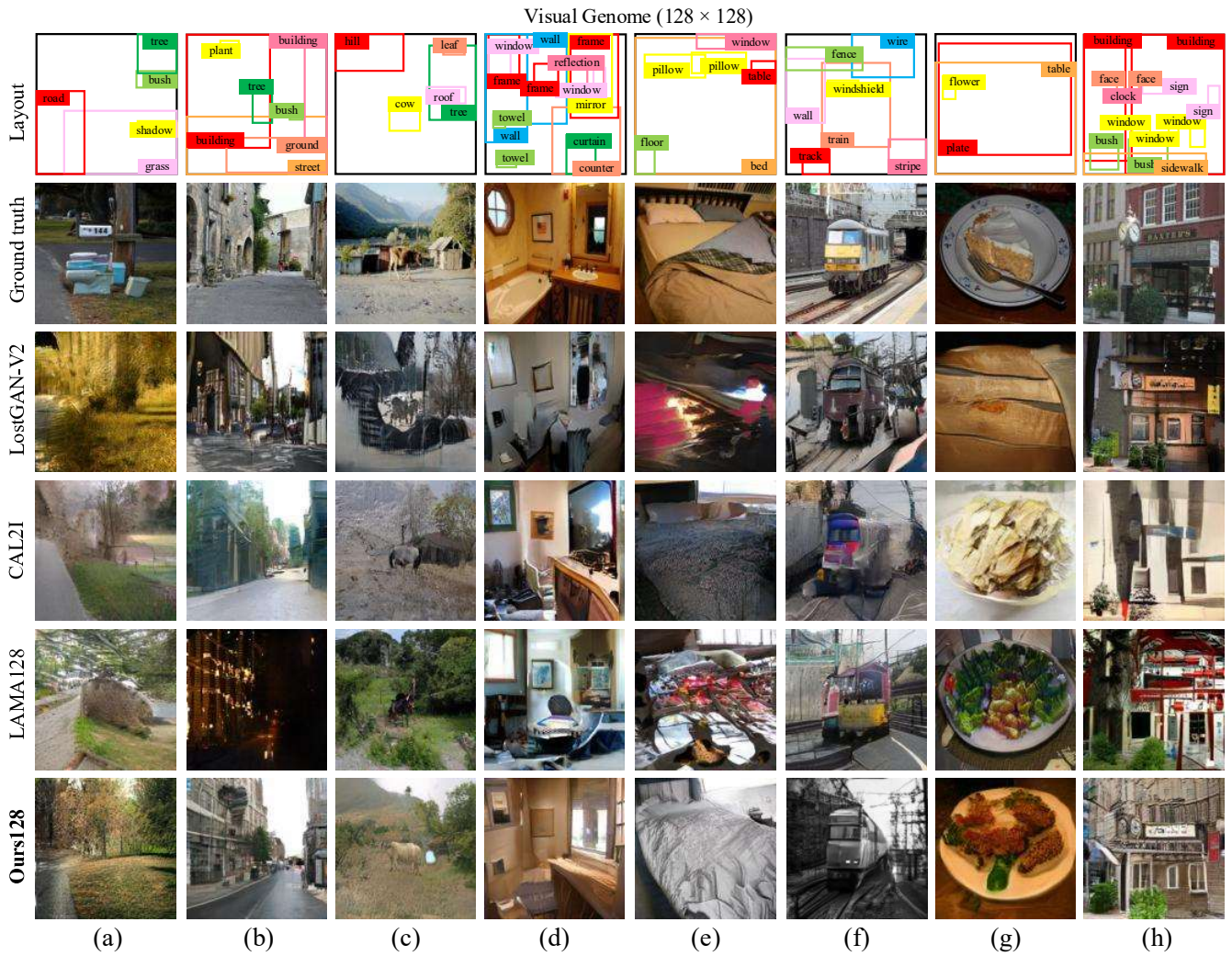


Figure 4: Examples of generating samples from a given layout using different methods on the Visual Genome [KZG*17] dataset. All images are of 128×128 resolution.

COCO-Stuff (256 × 256)

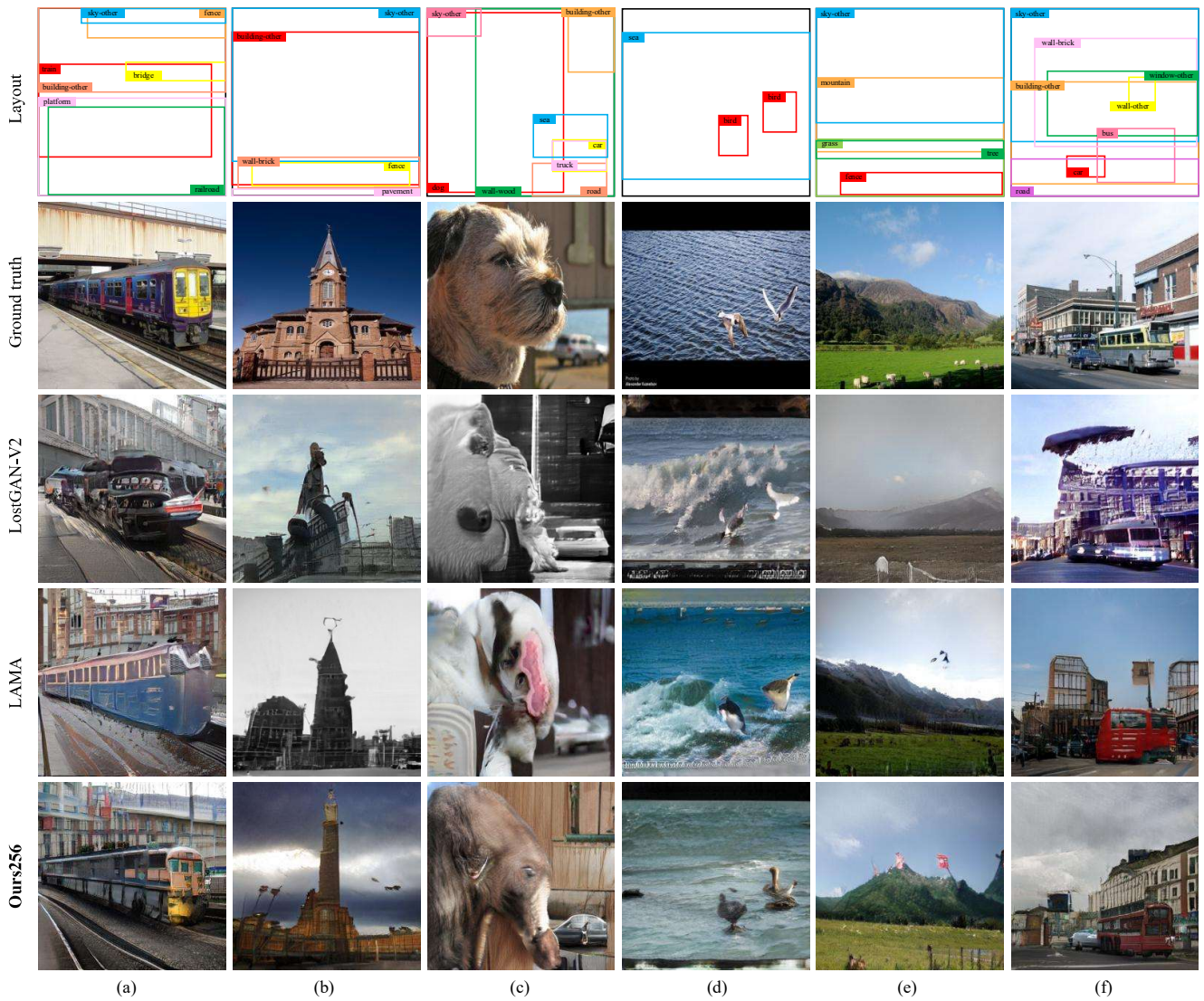


Figure 5: Examples of generating samples from a given layout using different methods on the COCO-Stuff [CUF18] dataset. All images are of 256×256 resolution.



Figure 6: Examples of generating samples from a given layout using different methods on the Visual Genome [KZG*17] dataset. All images are of 256×256 resolution.