## 1 OUR DATASET

**Dataset.** Some samples from our curated dataset are showcased in Fig.1. These shapes are a subset of the 150 shapes from an online database [1]. The diverse contour shapes are shown in Fig. 2.



Fig. 1: Samples of shapes from our dataset.



Fig. 2: Samples of canvases from our dataset.

## 2 EFFECT OF DIFFERENT RESOLUTIONS ON THE RESULT

Fig. 3 presents our comparative analysis using three different rasterization resolutions. We observe that rasterization resolutions impact simple and complex shapes placed on the canvas differently. For simple shapes, the layout results remain largely consistent across resolutions, showing minimal visual difference. In contrast, complex shapes benefit significantly from higher resolutions, which better capture fine structural details and reduce shape overlaps. This highlights the importance of high resolution in preserving geometry for complex shapes.

## 3 ADDITIONAL COMPARISON RESULTS FROM STATE-OF-THE-ART RECTANGULAR PACKING

Fig. 4 presents eight pairs of side-by-side result comparisons between our method and the LISP method. Overall, our method demonstrates comparable performance without the need for extensive pretraining on a large dataset. In Fig. 5, we present a comparison with GFPack [2].

## REFERENCES

- [1] Freepik. Flaticon. Available: https://www.flaticon.com/, 2024.
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Fig. 3: Resolution Impact on Layout Quality.

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 [3] Z. Yang, Z. Pan, M. Li, K. Wu, and X. Gao. Learning based 2d irregular shape packing. *ACM Trans. Graph.*, 42(6), dec 2023. ISSN 0730-0301. doi: 10.1145/3618348. URL https://doi. org/10.1145/3618348.



Fig. 4: Comparison with LISP [3] using Object dataset. (a) Our results (b) LISP [3] results. It's important to note that the LISP [3] does not always evenly fill the entire rectangle, as it is designed for strip packing problems where only the minimum bounding rectangle is considered, which might not be suitable for our task.



(a)

Garment

Dental



Fig. 5: Comparison with GFPack [2] using Garment and Dental dataset. (a) Our results. (b) GFPack [2] results. Because the dataset is randomly sampled from a source dataset and the scores are averaged, we do not provide a side-by-side comparison. Instead, the results are shown in groups.