

Supplementary Material for GemSketch

Full Set of BigBIRD Extractions

As mentioned in the paper’s text, we extracted 16 objects from the BigBIRD dataset. In this supplementary material, we provide images of all BigBIRD extraction results. For convenience, we have reproduced Table 1 from the paper and included it below.

The caption of each figure contains the name of each object, as that object appears in the BigBIRD dataset.

Object Name	Shape	ICP Error	Hausdorff Distance (%)	Num. Views	Object Name	Shape	ICP Error	Hausdorff Distance (%)	Num. Views
3m_high_tack_spray_adhesive	○	6.20	3.40	1	expo_marker_red	○	3.89	6.95	2
advil_liqui_gels	■	8.04	6.50	1	haagen_dazs_butter_pecan	○	6.21	4.69	2
bai5_sumatra_dragonfruit	○	10.62	5.16	2	hunts_sauce	○	6.56	5.85	1
cheez_it_white_cheddar	■	8.78	5.94	1	krylon_crystal_clear	○	6.25	4.87	1
cholula_chipotle_hot_sauce	○	5.82	4.84	2	pop_secret_light_butter	■	9.42	6.37	1
coca_cola_glass_bottle	○	29.69	7.39	2	red_bull	○	6.10	4.57	1
coffee_mate_french_vanilla	○	5.59	4.63	2	red_cup	○	4.25	7.34	1
dove_beauty_cream_bar	■	6.67	6.67	1	v8_fusion_peach_mango	○	6.48	5.40	1
					Mean		8.16	5.66	1.31
					Standard Deviation		5.81	1.11	0.46

Table 1: Quantitative comparison of our extracted models versus the ground truth meshes in the BigBIRD dataset. In the shape column, ○ and ■ indicate generalized cylinders and generalized cuboids, respectively. ICP Error is reported as the average distance between the point sets after ICP alignment in millimeters. All values in Hausdorff Distance column represent Hausdorff distances scaled by the length of the diagonal of the bounding boxes and converted to percentage values (refer to Section 4 of the paper for more details). Num.Views is the number of different point cloud views used for extracting a particular object.



Figure 1: *3m_high_tack_spray_adhesive*

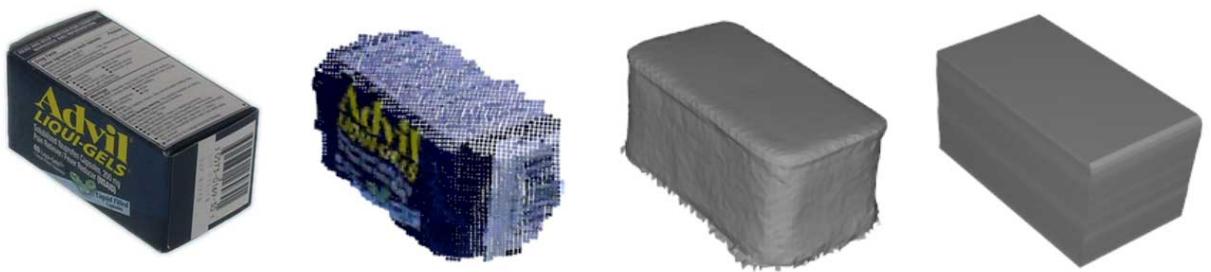


Figure 2: *advil_liqui_gels*

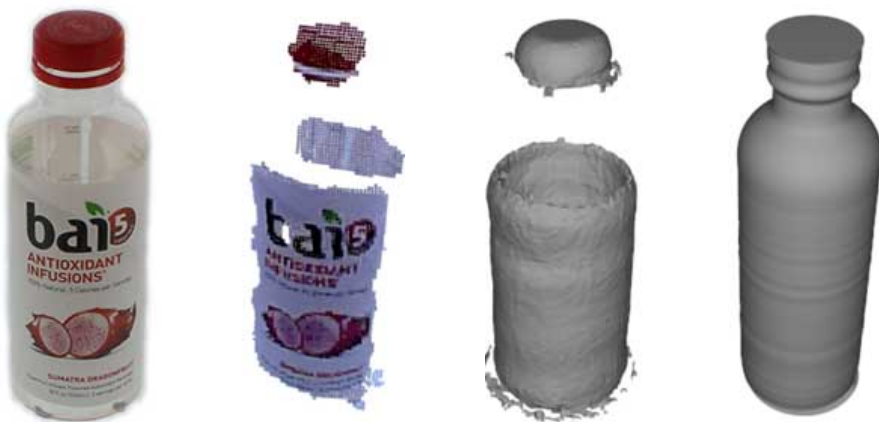


Figure 3: *bai5_sumatra_dragonfruit*



Figure 4: *cheez_it_white_cheddar*



Figure 5: *cholula_chipotle_hot_sauce*

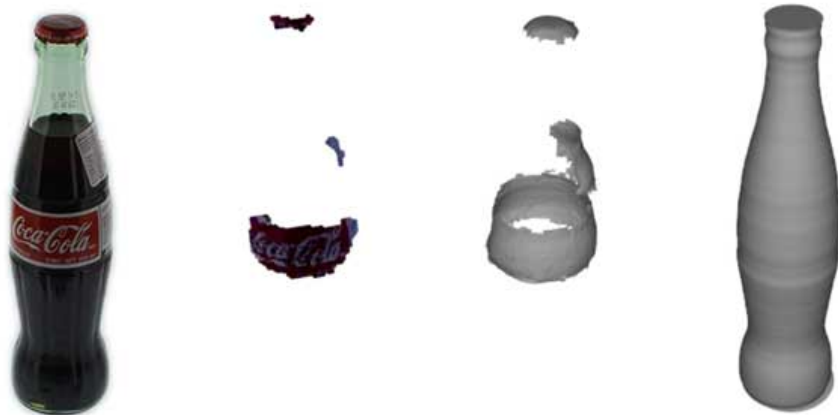


Figure 6: *coca_cola_glass_bottle*

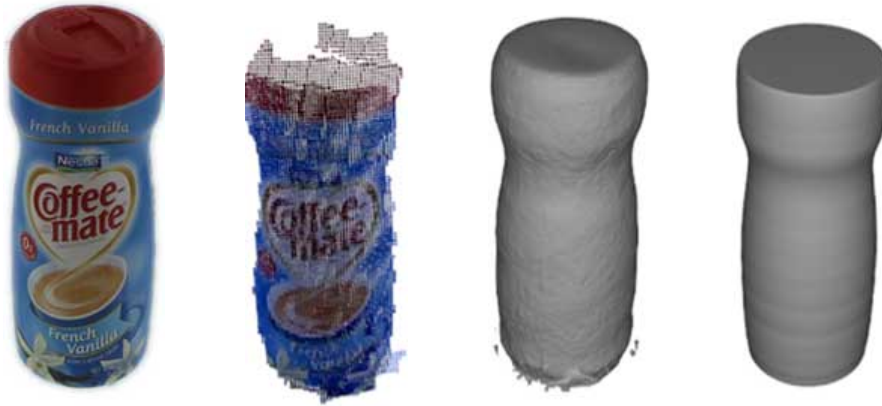


Figure 7: *coffee_mate_french_vanilla*

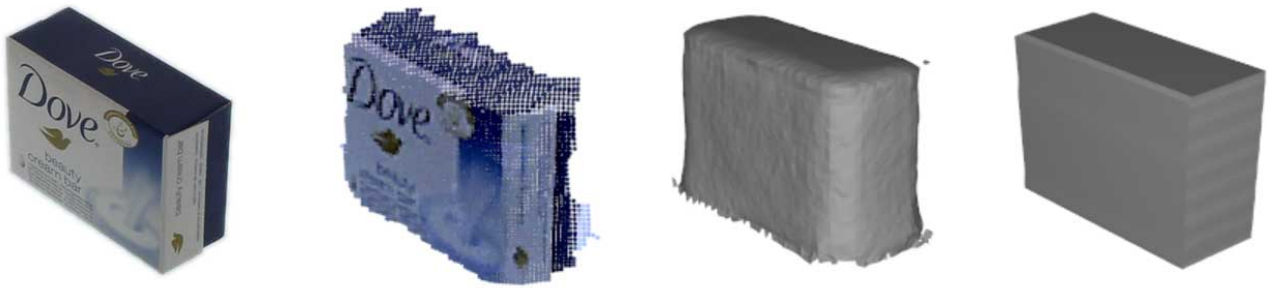


Figure 8: *dove_beauty_cream_bar*

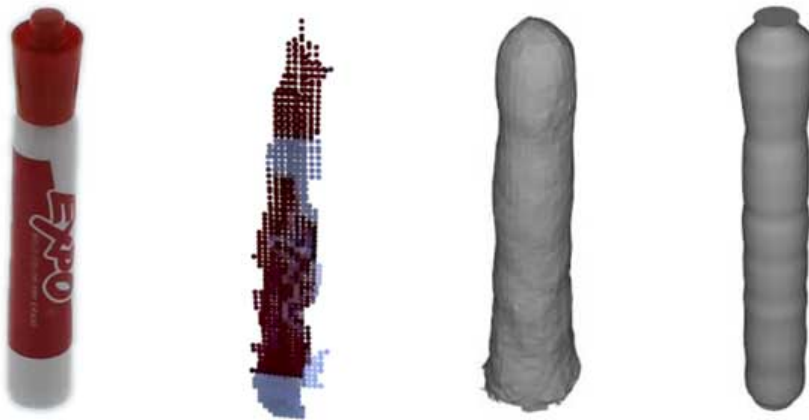


Figure 9: *expo_marker_red*

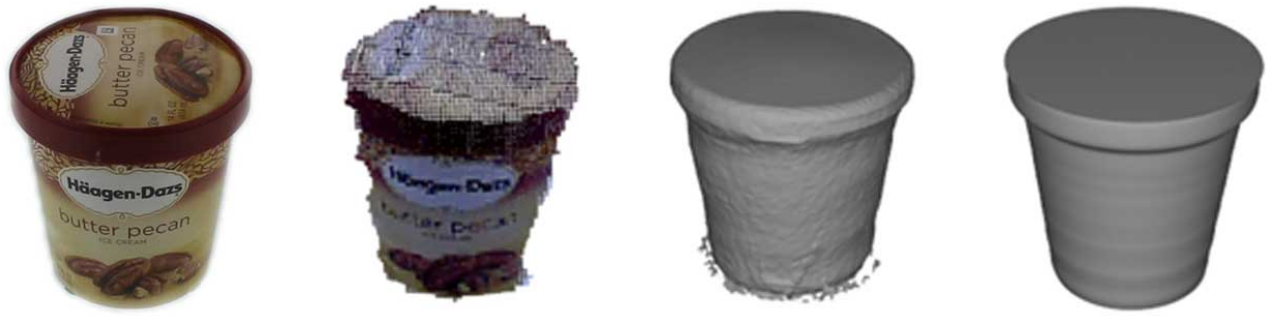


Figure 10: *haagen_dazs_butter_pecan*



Figure 11: *hunts_sauce*



Figure 12: *krylon_crystal_clear*

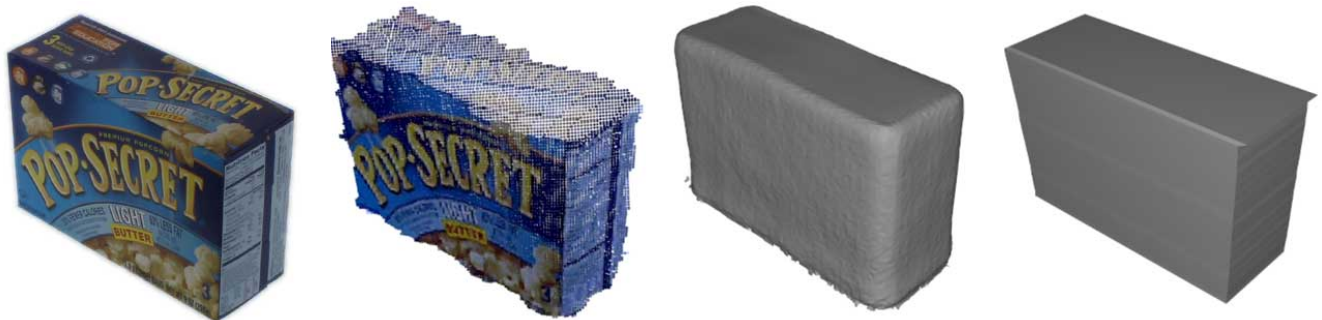


Figure 13: *pop_secret_light_butter*

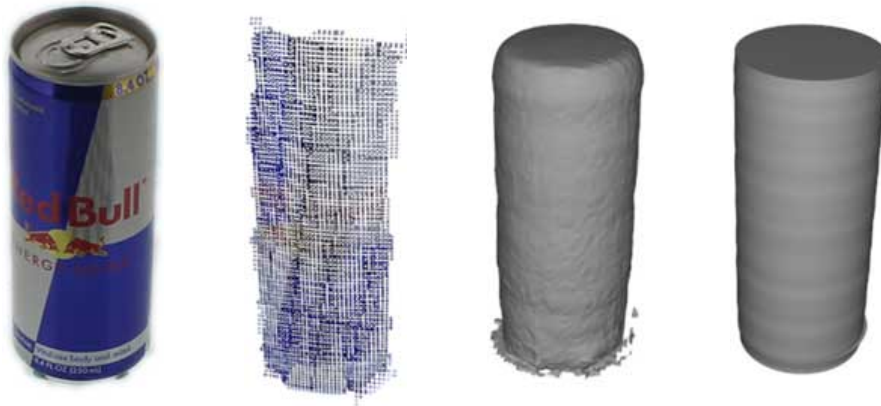


Figure 14: *red_bull*

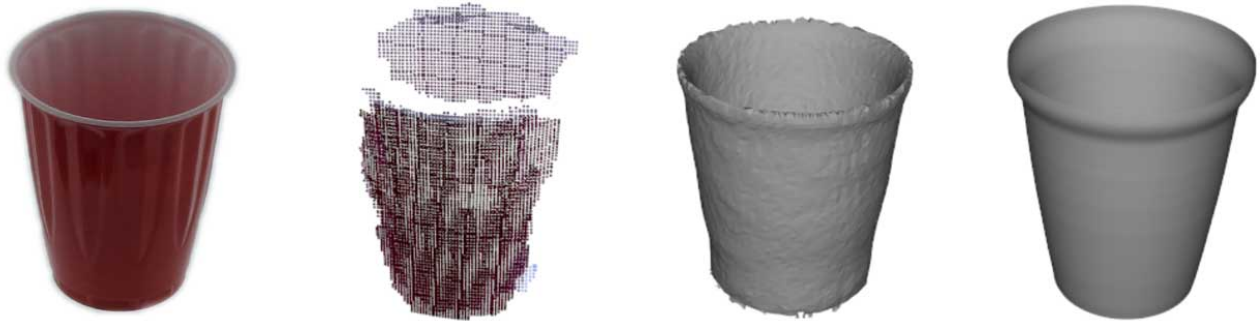


Figure 15: *red_cup*

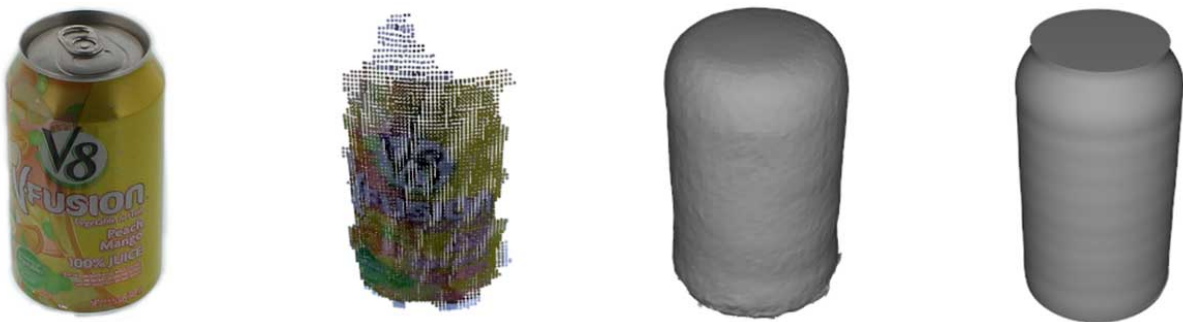


Figure 16: *v8_fusion_peach_mango*