Supplementary for SEED: A Benchmark Dataset for Sequential Facial Attribute Editing with Diffusion Models

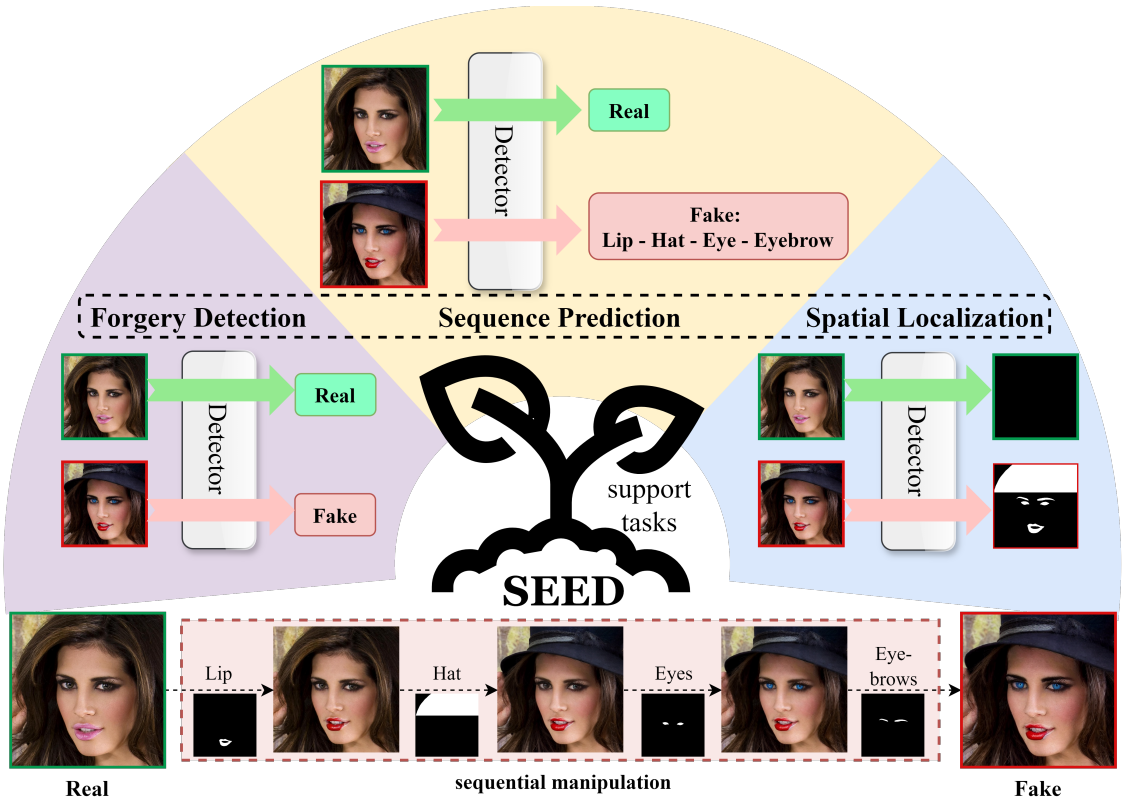
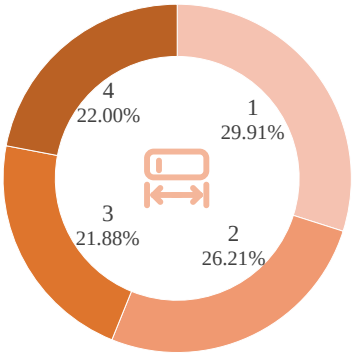


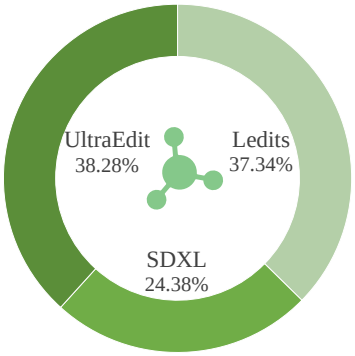
Figure 1: The tasks supported by our proposed SEED dataset. By recording detailed information such as masks and prompts during image manipulation, our SEED dataset can support a variety of downstream tasks such as forgery detection, sequence prediction, and spatial localization.

Table 1: Some prompt examples used by our proposed pipeline in the data generation process. By modifying from different dimensions, such as *color*, *style*, etc., our data samples are made more diverse.

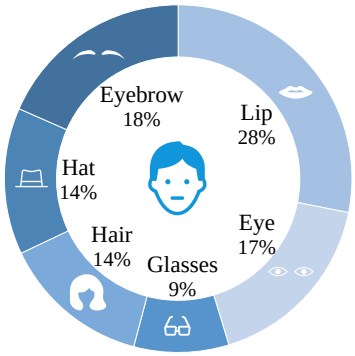
Attribute	Prompt		{*Placeholder*}
	Instruction	Caption	
Eyes	Make his eyes {*color*}.	A man with {*color*} eyes.	red, blue, black, white ...
Lip	Change her lipstick color to {*color*}.	A woman with {*color*} lipstick.	red, blue, black, white ...
Hair	Turn his hair {*color*}.	A boy with {*color*} hair.	red, blue, black, white ...
	Make her hair {*style*}.	A woman with {*style*} hair.	curly, straight
Eyebrows	Make her eyebrows {*style*}.	A girl with {*style*} eyebrows.	thick
Glasses	Add a pair of {*glasses*}.	A man wearing a pair of {*glasses*}.	glasses, sunglasses
Hat	Add a {*hat*}.	A woman wearing a {*hat*}.	hat



(a) distribution of sequence length



(b) distribution of diffusion models



(c) distribution of manipulated attribute

Figure 2: Dataset statistics.

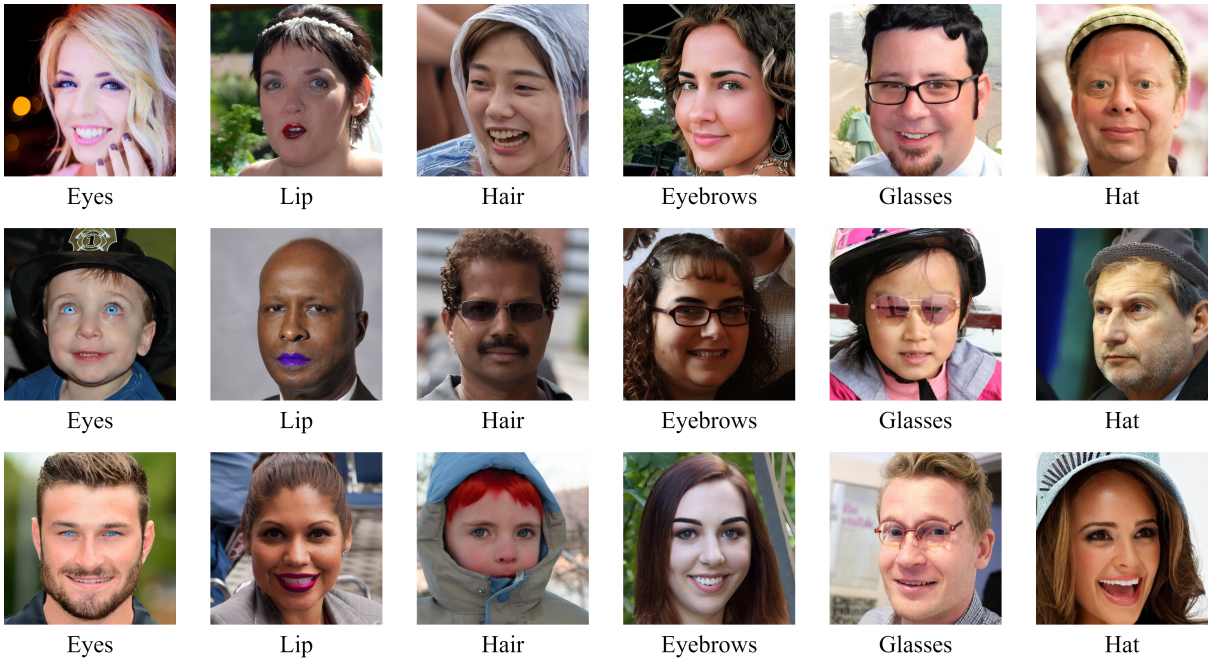


Figure 3: Samples with manipulation sequence length 1.

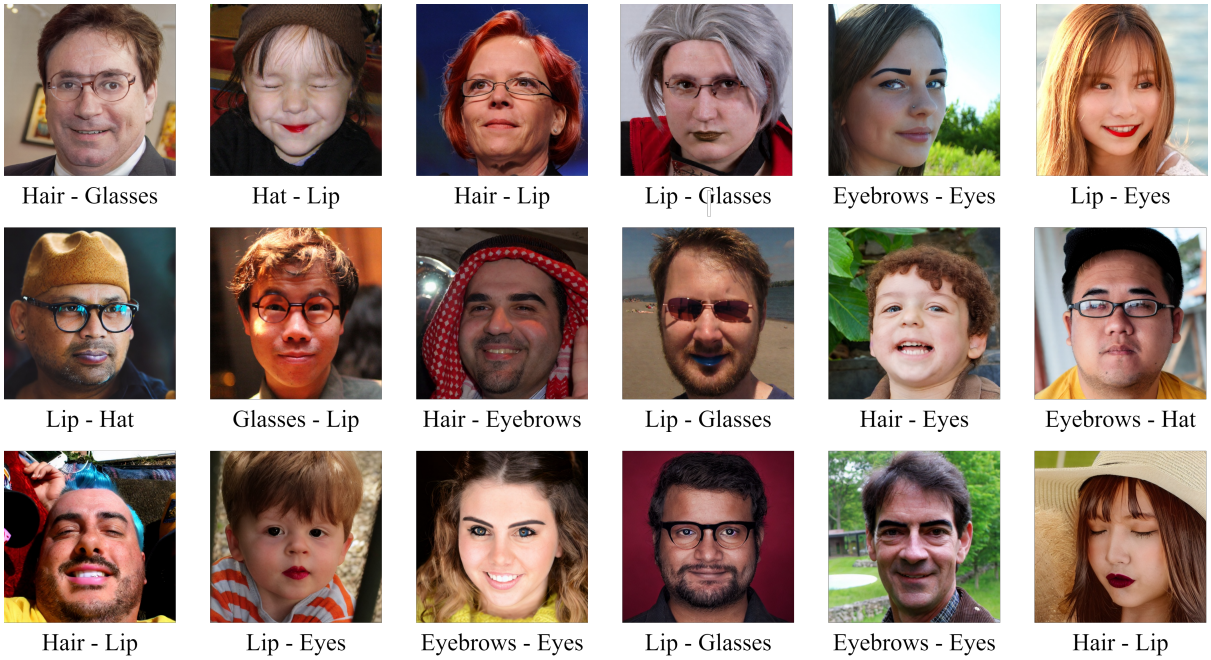


Figure 4: Samples with manipulation sequence length 2.

Figure 5: Samples with manipulation sequence length 3.

Eyebrows - Hat - Eyes - Lip

Eyebrows - Eyes - Lip - Hair

Hair - Eyebrows - Lip - Eyes

Hat - Eyebrows - Lip - Eyes

Eyebrows - Eyes - Lip - Hair

Lip - Eyebrows - Hair - Eyes

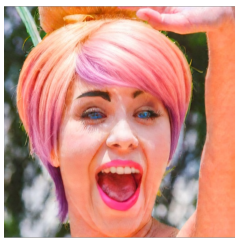
Eyes - Hair - Eyebrows - Lip

Hat - Eyebrows - Eyes - Lip

Hair - Eyebrows - Lip - Eyes

Hair - Eyebrows - Eyes - Lip

Eyes - Hair - Eyebrows - Lip



Eyes - Eyebrows - Hair - Lip

Figure 6: Samples with manipulation sequence length 4.