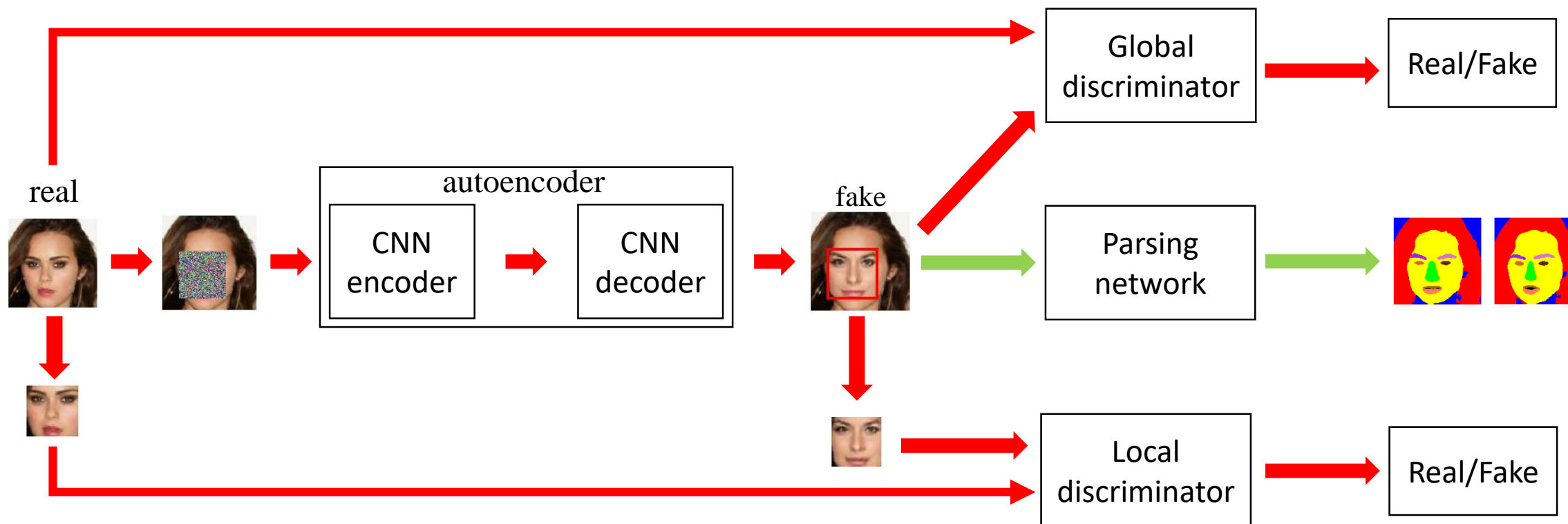


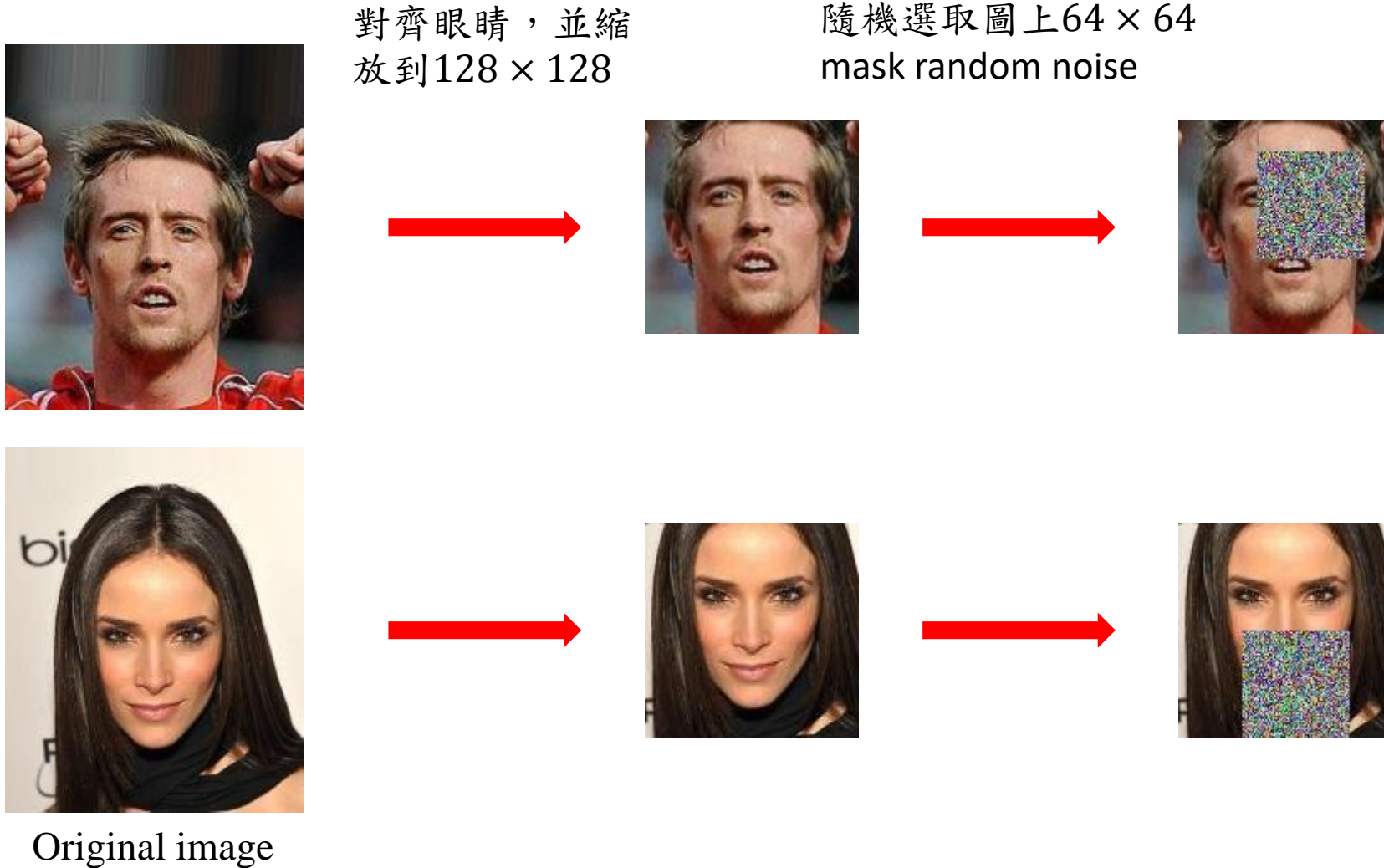
Generative Face Completion

2017 IEEE Conference on Computer Vision and Pattern Recognition
(CVPR)

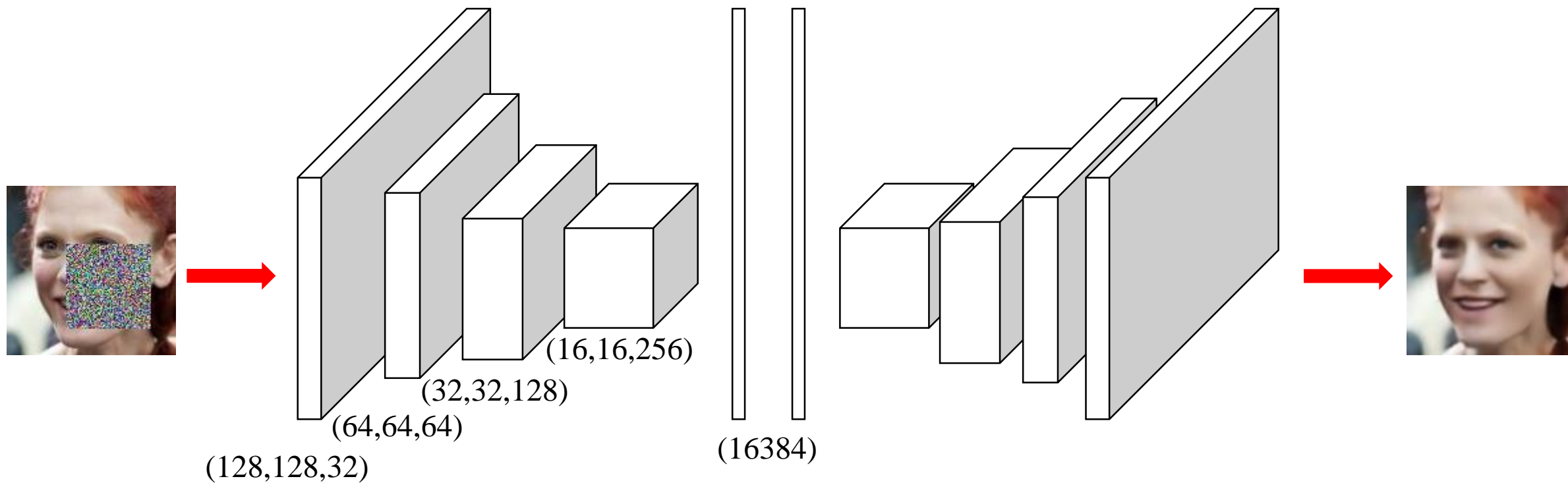
Framework



Preprocessing



Generator

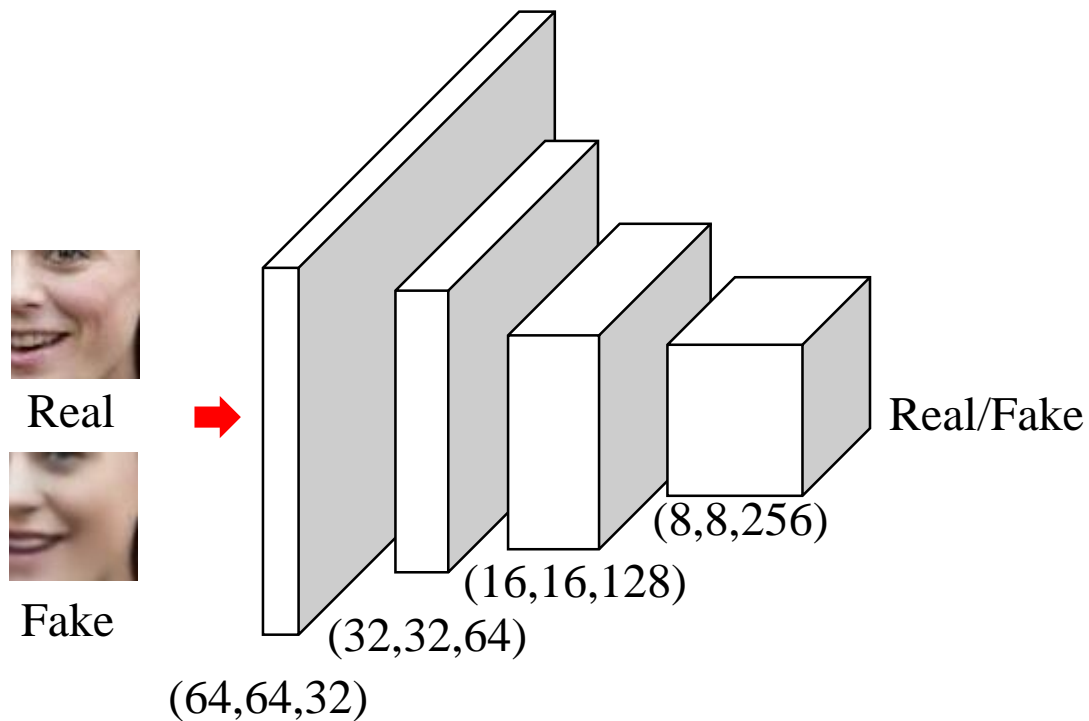


$$L = L_{reconstruction} + 300L_{a_1} + 300L_{a_2}$$

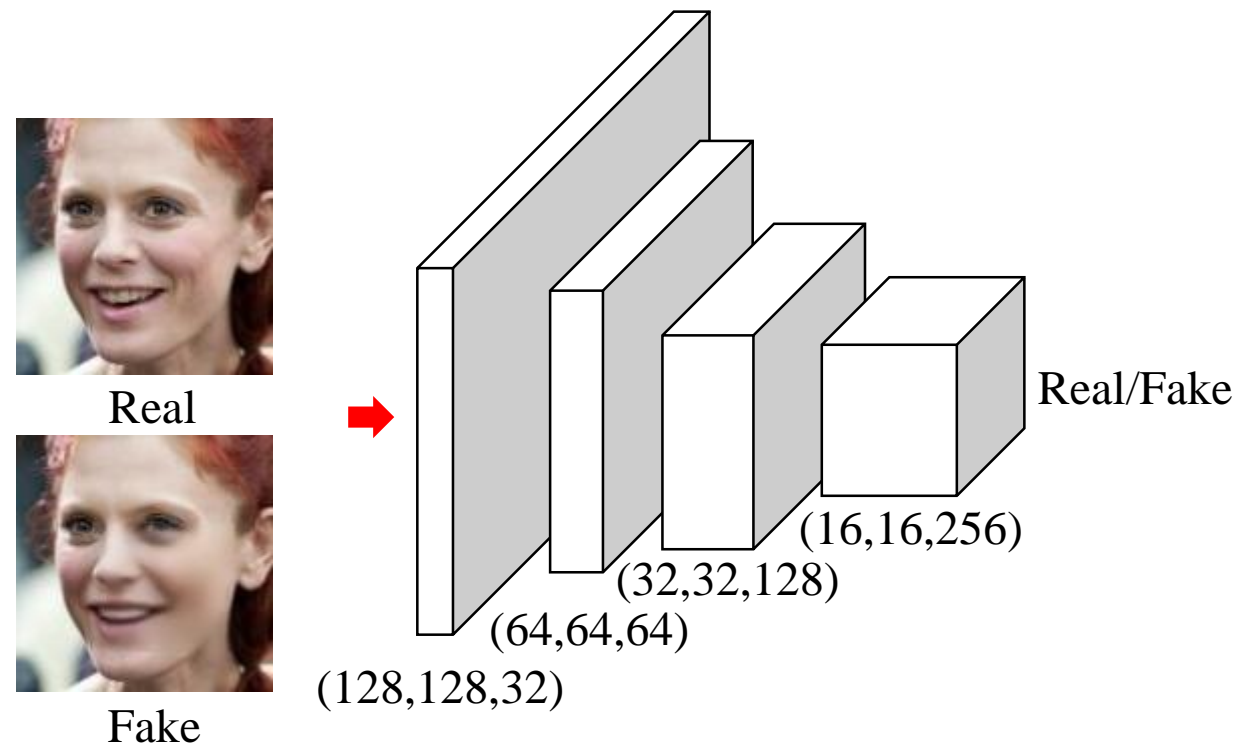
$$L_{a_i} = \min_g \max_D \mathbb{E}_{x \sim p_{data}(x)} [\log D(x)] + \mathbb{E}_{z \sim p_z(z)} [\log(1 - D(g(z)))]$$

Discriminator

Local discriminator



Global discriminator



$$L_{a_i} = \min_g \max_D \mathbb{E}_{x \sim p_{data}(x)} [\log D(x)] + \mathbb{E}_{z \sim p_z(z)} [\log(1 - D(g(z)))]$$

Result

<i>Input image</i>	<i>Original image</i>	<i>$L_{reconstruction}$</i>	<i>$L_{reconstruction} + 300L_{a_1}$</i>
